Polish Datives
- an Applicative Analysis

Dissertation zur Erlangung des akademischen Grades
doktor philosophiae (Dr. phil.)

eingereicht an der Sprach- und literaturwissenschaftliche Fakultät
der Humboldt-Universität zu Berlin

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Datum der Disputation: 04.11.2020

Abstract

English

This thesis focuses on the relative syntactic position of Polish inherent datives. In semantic terms, we propose that all dative-marked arguments in Polish denote an entity mentally affected by a change, state or process which takes place within the personal sphere of the entity lexicalised as a dative DP. In syntactic terms, we propose that Polish dative DPs are applicatives, licensed by an Appl head, and that they come in two types, low and high, depending on their syntactic position. Low applicatives merge below *v* while high applicatives merge above it. The merge position of an applicative determines its syntactic behaviour. In contrast to low applicatives, high applicatives can antecede anaphors, control adjunct participial clauses and depictive secondary predicates. We propose that these differences constitute reliable diagnostics for applicative types in Polish. With these tests, we analyse Polish recipients and benefactives as low applicatives and Polish experiencers as high applicatives. Moreover, we distinguish between applicatives that are free, e.g. benefactives in Polish, and those that are selected, e.g. Polish recipients. Applicatives selected by the verb merge first as part of *v* or the root, and they become applicatives on movement to [*Spec;ApplP*]. In contrast, non-selected applicatives merge directly in [*Spec;ApplP*], i.e. they are *born* as applicatives. We propose a participant implication test to differentiate between these two types. Moreover, extending the analysis beyond Polish data, we hypothesise that cross-linguistically, there exist two types of applicatives, verb-internal, projected as part of *vP / VP*, and verb-external, projected as part of *ApplP*. We take Polish datives to be of the latter type.

Keywords: Polish, syntax, datives, applicatives, recipients, benefactives, experiencers

Deutsch

Diese Arbeit konzentriert sich auf die relative syntaktische Position polnischer inhärenter Dative. In semantischer Hinsicht schlagen wir vor, dass alle dativmarkierten Argumente in polnischer Sprache eine Entität bezeichnen, die geistig von einer Veränderung, einem Zustand oder einem Prozess betroffen ist, der im persönlichen Bereich der als Dativ-DP lexikalisierten Entität stattfindet. In syntaktischen Begriffen schlagen wir vor, dass polnische Dativ-DP Applikative sind, die von einem *Appl*-Kopf lizenziert wurden, und dass sie je nach ihrer syntaktischen Position in zwei Typen vorkommen, tief und hoch. Tiefe Applikative verschmelzen unter *v*, während hohe Applikative darüber verschmelzen. Die Verschmelzungsposition eines Applikativs bestimmt sein syntaktisches Verhalten. Wir zeigen, dass im Gegensatz zu tiefen Applikativen hohe Applikative Anaphern vorangehen können, zusätzliche Partizipialsätze kontrollieren und sekundäre Prädikate darstellen können. Wir schlagen vor, dass diese Unterschiede eine zuverlässige Diagnose für die Anwendungstypen in polnischer Sprache darstellen. Mit diesen Tests analysieren wir polnische Rezipienten und Benefiziäre als tiefe Applikative und polnische Experiencer als hohe Applikative. Darüber hinaus unterscheiden wir zwischen freien Applikativen, z. B. Benefiziäre im Polnischen, und gewählten, z. B. Rezipienten im Polnischen. Vom Verb gewählte Applikative verschmelzen zuerst als Teil von v oder der Wurzel und werden bei der Bewegung zu [*Spec;ApplP*] zu Applikativen. Im Gegensatz dazu werden nicht gewählte Applikative direkt in [*Sepc;ApplP*] verschmolzen, d. h. sie werden als Applikative geboren. Wir schlagen einen Partizipanten-Implikationstest vor, um zwischen diesen beiden Typen zu unterscheiden. Wenn wir die Analyse über polnische Dative hinaus erweitern, nehmen wir an, dass es sprachübergreifend zwei Arten von Applikativen gibt: verb-intern, projiziert als Teil von *vP / VP* und verb-extern, projiziert als Teil von *ApplP*. Wir nehmen polnische Dative als letztere an.

Schlüsselwörter: Polnisch, Syntax, Dative, Applikative, Rezipienten, Benefiziäre, Experiencer

Acknowledgements

This dissertation was written as part of a DFG-funded project. I am grateful for this financial support which allowed me to work on this thesis as well as attend many conferences and summer schools.

I want to thank my supervisors, Roland Meyer and Berit Gehrke, who supported me during this journey. I owe special credit to Berit, who not only made sure that I tame this beast of a thesis, but that I actually finish it. Many thanks for all the help, understanding and motivation. If it was not for you, Berit, I would have never submitted this work.

I also thank those who helped me, in one way or another, during my PhD studies and earlier academic adventures: Theresa Biberauer, Anna Bondaruk, Tom Lundkser-Nielsen, Daisy Neijmann, Radek Šimík, Michelle Sheehan, Marcin Wągiel, Jacek Witkoś,

I also thank Paulina Łęska, my project partner in crime. Not only have I learnt a lot through our endeavours, but I also had tons of fun with her. Similarly, many thanks to Gosia Tempel, for all the chats we had over our PhD coffee breaks.

Last but not least, I want to thank my parents, my brother, my friends, my CrossFit family and Moomins - they all kept me sane during this journey. However, most of all, I did not go crazy (OK, I actually did) because of Max, whom I owe the absolute *biggest* credit. He probably still does not quite understand what it is that I did over the past years. Nevertheless, he is the only one who *really* understands what finishing this thesis means to me.

This has been a journey, and a lesson I will never forget.

Contents

Part I.

Preliminaries

1. Introduction

1.1. Dative uses in Polish

Polish is a language that shows dative arguments in many contexts, seemingly with a variety of meanings. (1) illustrates some of the most common dative uses in Polish, with labels commonly used in the literature.

(1) a. **recipient**

Tomek dał **Ewie** książkę.
Tomek.NOM gave Ewa.DAT book.ACC
'Tomek gave Ewa a book.'

b. **benefactive**

Tomek gotuje **dzieciom** obiad.
Tomek.NOM cooks children.DAT dinner.ACC
'Tomek is cooking dinner for his children.'

c. **affected possessor**

Tomek zbił **Ewie** wazę.
Tomek.NOM broke Ewa.DAT vase.ACC
'Tomek broke Ewa's vase.'

d. **experiencer**

Ewie spodobał się Tomek.
Ewa.DAT appealed REFL Tomek.NOM
'Tomek appealed to Ewa.'

e. **affected agent**

Ewie dobrze śpiewało się tę piosenkę.
Ewa.DAT well sang REFL this song.ACC
'Ewa found it good/easy to sing this song.'

f. **dative of ease/enjoyment**

Tomek **sobie** śpiewa.
Tomek.NOM self sings
'Tomek is singing (and he is enjoying it).'

At first glance, the meanings of the dative-marked DPs[1] in (1) seem to be unrelated. Because of this apparent lack of a common meaning denominator, many accounts of the Polish dative limit themselves to providing a list of the varying dative uses (Bartnicka-Dąbrowska et al., 1964; Benni et al., 1923; Szober, 1953; Szupryczyńska, 1996; Wierzbicka, 1988, a.o.). Neither a unified meaning of the dative case is proposed, nor an explanation of how the same case could be assigned in such varying contexts. Wierzbicka, for example, notes that:

> attempts to assign the Polish dative - or any other dative - a unitary meaning, necessarily have limited explanatory potential. If we want to be able to predict the entire range of uses that the dative has in a particular language, we have to establish a full list of semantic constructions permitting the use of dative in this language. (Wierzbicka, 1988, 393)

The exact number of dative contexts in Polish differs from author to author. (Wierzbicka, 1988, 427-433), for example, proposes the following, exhaustive list of dative uses in Polish:

(2) **dative uses in Polish**
causing to have, *causing to be and to have*, *coming not to have*, *coming to be*, *coming to have more*, *causing to see*, *causing to hear for pleasure*, *causing to know*, *causing to be able to do something*, *causing a change in someone's possession*, *accidental change in someone's possession*, *lucky/unlucky agent*, *causing a change in a related person*, *something bad happening to a related person*, *bad actions of related persons*, *warning*, *causing a change in a body part*, *coming into contact with a body part*, *coming close to a body part*, *accidental change in appearance*, *examining the body*, *looking at the body*, *unintentional feeling*, *unintentional thought*, *unintentional wanting*, *unintentional sensation*, *unintentional process in the body*, *unintentional change in position of body part*, *unintentional change in appearance*, *unintentional speech*, *agent viewed as experiencer*

The list in (2) appears to be a collection of unrelated dative uses. It is difficult to see any link between, e.g. *causing to have* and *looking at the body*. To make things more complicated concerning any generalisations about dative uses, in principle, any verb type can license a dative-marked argument in Polish - whether stative

[1] Throughout this thesis, we abstract away from the discussion as to whether Polish nominals are DPs or NPs. For consistency, we stick to using the term 'DP'; however, with no particular theoretical significance.

or active, unergative or unaccusative, intransitive or (di)transitive. Consider some examples in (3).

(3) a. **stative**

Uczniowie siedzieli **Ewie** cicho na zajęciach.
pupils sit Ewa.DAT quietly on classes
'Ewa's pupils sat quietly during the classes.'

b. **active**

Tomek kupił **Ewie** kwiaty.
Tomek.NOM buy Ewa.DAT flowers.ACC
'Tomek bought Ewa flowers.'

c. **unergative**

Tomek pobiegł **Ewie** do sklepu.
Tomek.NOM run Ewa.DAT to shop.GEN
'Tomek run to the shop for Ewa.'

d. **unaccusative**

Ewie zwiędły kwiatki.
Ewa.DAT wither flowers.NOM
'Ewa's flowers withered.'

Thus, making any generalisations about dative uses in Polish is challenging; however, as we show in this thesis, it is not impossible.

In terms of the meaning of the dative, following Dąbrowska (1997), we propose in Chapter 2 that there are some **limitations** on dative licensing. Namely, datives must obligatorily denote (potential) **affectedness** of the entity encoded as the dative-marked argument. For example, in (3a), *Ewa* is affected by the fact that her students did not disturb her classes. In (3b), *Ewa* is positively affected by receiving the flowers. In (3c), the affectedness is due to the fact that *Ewa* does not have to run to the shop herself. In (3d), *Ewa* is negatively affected by the withering of her flowers. When it is highly unlikely that the dative-marked DP would be affected by the event, the sentences are degraded. Consider the difference between the two sentences in (4).

(4) a. Sąsiad wbiegł Ewie **pod samochód**.
neighbour.NOM in.ran Ewa.DAT under car
'The neighbour ran Ewa under her car.'

b. ??Sąsiad wbiegł Ewie **do parku**.
neighbour.NOM in.ran Ewa.DAT to park
'The neighbour ran Ewa into the park.'

In (4), it is more probable that *Ewa* will be affected when her neighbour runs under *Ewa*'s car, as in (4a), not when he runs into a nearby park, as in (4b).

Because, as we propose in Chapter 2, (potential) affectedness of the entity lexicalised as a dative DP is a prerequisite for dative licensing, the lack of such affectedness results in the degraded status of (4b).

Alongside the idea that all dative uses in Polish can be unified under the notion of affectedness in semantic terms, we propose that the various Polish dative uses can also be unified in syntactic terms. Some syntacticians have undertaken similar attempts to unify all dative uses. For example for Spanish, a language in which dative arguments occur in similar contexts as in Polish, Cuervo (2003, 2010, 2014, 2015) proposes a theory that unifies Spanish datives under one licensing head - the Applicative (*Appl*). Following Pylkkänen (2002, 2008), Cuervo takes applicatives to be non-core arguments, and she proposes that Spanish datives merge verb-externally, as part of an applicative phrase, *ApplP*. Depending on the meaning and the syntactic behaviour of a given Spanish dative, it can merge above, below *v*, or between two *v*s. The position in which a given dative merges differentiates the various dative uses in Spanish.

Many have proposed various syntactic accounts for Polish datives. For example, indirect dative objects have been accounted for by, e.g. Citko (2011); Dornisch (1998); Gogłoza et al. (2020); Witkoś (2007). An analysis of dative experiencers has been proposed by, e.g. Biały (2005); Bondaruk (2017); Bondaruk and Rozwadowska (2018); Bondaruk et al. (2017a,b); Bondaruk and Szymanek (2007); Dziwirek (1994); Gogłoza (2013); Gogłoza and Łęska (2018); Jiménez-Fernández and Rozwadowska (2016); Tajsner (2008); Wiland (2009, 2016); Żychliński (2016, 2018). The so-called out of control datives/affected agents have been analysed by, e.g. Cichosz (2012, 2014); Dziwirek (1994); Gogłoza (2017a); Jabłońska (2007); Krzek (2012); Willim (2018). Benefactive datives have been briefly mentioned in, e.g. Dziwirek (1994); Krzek (2012). However, not many, with exceptions discusses below, have attempted to unify the various uses of the Polish dative under one account.

A recent theory of binding, proposed in, e.g. Gogłoza and Łęska (2018); Gogłoza et al. (2020); Witkoś et al. (2018a,b, 2020), unifies various Polish datives, e.g. recipients, experiencers, or possessive datives, under one account. Based on binding phenomena, the authors argue that Polish datives can project high, in [*Spec;vP*], or low, in [*Spec;VP*]. In the analysis put forward in this thesis, we follow the insights of these authors concerning binding as a reliable diagnostic for the relative position of a given dative-marked argument. Namely, we assume that the ability of a given dative argument to bind an anaphor indicates its high projection, while an inability to do so, signals a lower projection. However, in contrast to Gogłoza and Łęska (2018); Gogłoza et al. (2020); Witkoś et al. (2018a, 2020), we assume that dative arguments are of the applicative

type, and thus they are projected in a low or high [*Spec;ApplP*] position. We additionally account for the other properties of datives in Polish, including case licensing and meaning commonalities.

1.2. Some theoretical assumptions

The assumptions relevant to the analysis presented in a given chapter will be introduced as the discussion unfolds. In this section, we briefly present the assumptions behind all the chapters. Particularly, we discuss the verb architecture assumed in this thesis as well as the distinction of non-structural cases into inherent and lexical.

In our analysis, following, e.g. Cuervo (2003); Jabłońska (2007); Marantz (1993), we decompose the verb into a **category-neutral root** and a categorising/**verbalising head**, *v*. In the case of Polish, we take it that the thematic vowel represents the *v* head. Similar ideas concerning the morpho-syntactic status of the Polish thematic vowel, although within different theoretical frameworks, have been proposed in, e.g. Czaykowska-Higgins (1988); Jabłońska (2007); Rościńska-Frankowska (2012); Wiland (2009). In particular, we follow Czaykowska-Higgins (1988) who decomposes the Polish verb into a four-part constituent structure: a) the C-stem, b) the VS-stem, c) the TM-stem, and d) the P/N-stem.

(5) **constituent structure of the Polish verb**
[[$_{TM}$ [$_{VS}$ [$_{V}$ (Prefix) [C-stem] $_{V}$] (VS) $_{V}$] (TM) $_{TM}$] P/N]

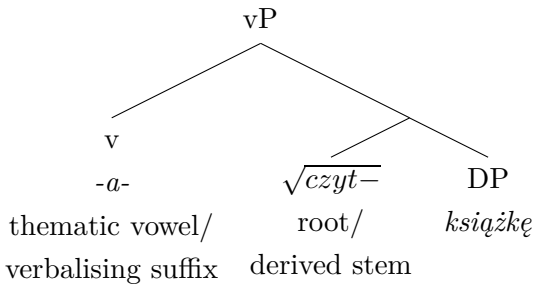
C-stem - root or derived stem
VS - verbalising suffix (Thematic Vovel, ThV)
TM - tense marking, infinitive, participle
P/N - person, number, gender (in the past)

(Czaykowska-Higgins, 1988, 53)

The C-stem carries the bulk of the lexical content. Because verbs can be derived or non-derived, C-stem may correspond to the root of the verb, e.g. ***pis***-*a-ć* 'to read', or a stem consisting of the root and a non-inflectional affix, e.g. ***pod+pis***-*a-ć* 'to sign something'. In the analysis presented in this thesis, we abstract away from TM-stems and P/N affixes. The verb elements that are most crucial for this thesis are the VS and C-stem, represented in syntactic terms in (6).

(6) czytać książkę.
to.read book.ACC

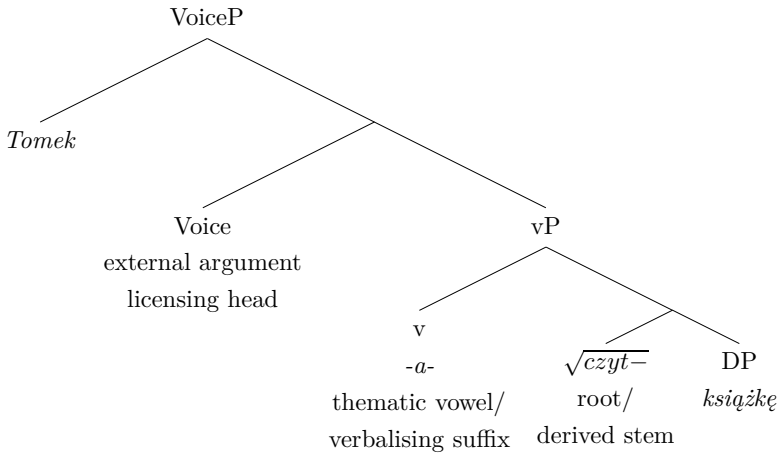
'to read a book'



In all chapters, the decomposition of the verb into the C-stem, which we refer to as a *root*, and the VS, the verbalising suffix, which we refer to as the *thematic vowel* or v head, will become crucial. This is because we propose that the dative licensing head can merge between the root and v, or higher, i.e. between v and *Voice*.

We take ***Voice*** to be the functional head that licenses the external argument and relates it to the event (Cuervo, 2003; Kratzer, 1996; Marantz, 1993; Pylkkänen, 2002, a.o.). The *Voice* head merges above the thematic vowel, v, and it decomposes the little v head of (Larson, 1988, et seq.) into v and *Voice* as in (7).

(7) Tomek czyta książkę.
Tomek.NOM reads book.ACC
'Tomek is reading a book.'



The external argument and the event are linked through Event Identification, in (8), where s is the type of event (or situation), e is the type of individuals, and t is the type of truth-values. Entities of type $\langle s, t\rangle$ are functions from events to truth-values and entities of type $\langle e, \langle s, t\rangle\rangle$ are functions that map individuals to function from events to truth-values.

(8) **Event Identification**

f	g	→	h
⟨e,⟨⟨s,t⟩⟩	⟨s,t⟩		⟨e,⟨s,t⟩⟩
			$\lambda x_e \lambda e_s$ [f(x)(e) & g(e)]

(Kratzer, 1996, 122, ex.23)

Event Identification is a compositional operation which combines the external argument with the event that is denoted by *vP*. This operation allows for the addition of various conditions to the event that the *vP* describes. As discussed in Chapter 2 and Chapter 3, we take the *Appl* head to resemble *Voice* in that it relates the argument in [*Spec;ApplP*] to the event.

Moreover, when discussing case, we follow the classification of Woolford (2006). Namely, alongside the distinction into structural and non-structural case, we further divide non-structural cases into **lexical** and **inherent**. Lexical case is idiosyncratic, selected and licensed by certain roots. Inherent case is more regular, associated with a given θ-role/positions. The two types of cases are in complementary distribution concerning θ-positions. "[O]nly themes/internal argumetns may have lexical Case, and only external argument and DP goals may have inherent Case" (Woolford, 2006, 111). Polish dative case can be either lexical or inherent, both illustrated in (9).

(9) a. **lexical dative**

Tomek pomógł Ewie.
Tomek.NOM helped Ewa.DAT
'Tomek helped Ewa.'

b. **inherent dative**

Tomek dał Ewie kwiaty.
Tomek.NOM gave Ewa.DAT flowers.ACC
'Tomek gave Ewa flowers.'

Crucially, in the discussion to follow, we focus on inherent datives. We abstract away from lexical datives.

1.3. Analysis overview

The analysis proposed accounts, predominantly, for the relative syntactic position of the various types of Polish dative-marked arguments, and, to a lesser extent, for the meaning commonalities of dative types in Polish. Moreover, we focus our discussion particularly on recipients, in Chapter 3, and experiencers, in Chapter 4. However, based on the applicative diagnostics we propose in

Chapters 2 and 3, our **unified account** can be extended to the other dative uses in Polish.

As already indicated in the previous section, in semantic terms, we propose that all dative-marked arguments in Polish denote an entity **mentally affected** by a change, state or process that takes place within the personal sphere of the entity lexicalised as a dative DP.

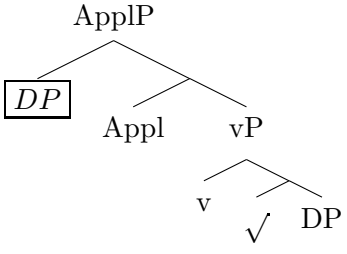
(10) **Affectedness of the dative-marked DP:**
An entity lexicalised as a dative-marked argument is said to be **affected** iff the event to which the dative argument is related to can (potentially) give rise to a given mental state (positive or negative) of the entity encoded by the dative DP.

The more specific meaning of a given dative DP is due to the meaning of the verbal predicate to which the DP is related, and to the context in which the dative occurs. However, all dative uses are taken to be united under the notion of affectedness.

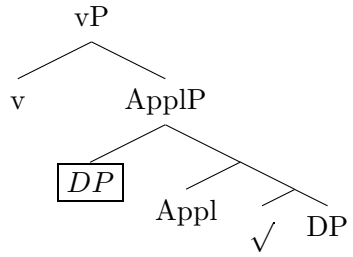
Moreover, we show how a semantically unified analysis of datives could apply to syntax. We follow Cuervo (2003), who argues that all datives in Spanish can be consolidated under one account, that of **applicatives**. We take all arguments marked with inherent datives in Polish to be licensed by an applicative head, *Appl*. This functional head licenses applicative arguments, values their case as dative, and relates the applicative to the event. Moreover, *Appl* also licenses the affectedness component of the meaning of datives, marking datives with a [+affected]-feature.

We propose that in syntactic terms, there exist **two main types** of datives - low and high. These two types correspond to the position in which a given dative type merges. Assuming after, e.g. Cuervo (2003); Jabłońska (2007); Marantz (1997) that verbs decompose into a root and a verbalising head, *v*, we take Polish **low applicatives** to merge below *v* and **high applicatives** to merge above *v*. This idea is illustrated in (11).

(11) a. **Polish high applicative**



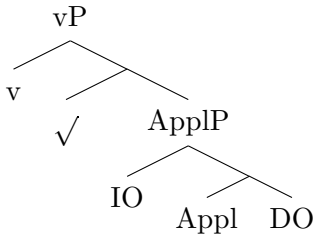
b. **Polish low applicative**



The position of a given dative determines its syntactic behaviour, e.g. whether the dative can antecede anaphors, control adjunct participial clauses, or be modified by depictive secondary predicates. These differences in the syntactic behaviour of high versus low applicatives will constitute our diagnostics for applicative types. We propose that, in contrast to low applicatives, high applicatives can antecede anaphors, control adjunct participial clauses and depictive secondary predicates.

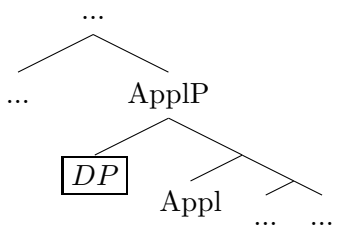
We illustrate Polish low applicatives with recipients and benefactives. In contrast to, e.g. Cuervo (2003); Pylkkänen (2002, 2008), we do not take low applicatives to be co-arguments of the direct object, as in (12).

(12) **Pylkkänen's low applicative structure**
(Cuervo, 2003; Pylkkänen, 2002, 2008, a.o.)



We propose that in structural terms, Polish high applicatives and low applicatives have the same architecture, as in (13).

(13) **low and high applicatives in Polish**



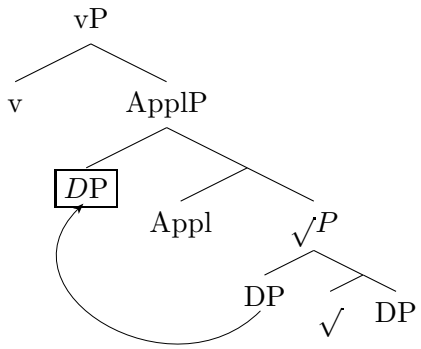
The difference between the two applicative types is due to where the *Appl* head is projected, above v or below v. We discuss the arguments against (12) and for (13) in Chapter 3. In the same chapter, we discuss the reasons for taking low and high applicatives to have the same semantics, in contrast to Cuervo (2003);

Pylkkänen (2002, 2008). We propose that for both low and high applicatives, the *Appl* head relates the argument in [*Spec;ApplP*] to the event, as in (14).

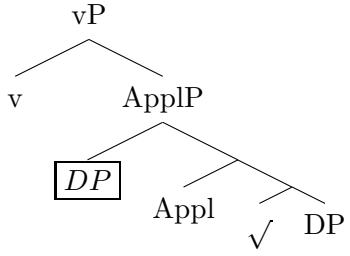
(14) **Appl**
λx.λe.Appl(e, x)
(collapsing Appl_{Rec}, Appl_{Ben}, Appl_{Instr}, Appl_{Loc}, etc.)
(modelled on Pylkkänen, 2002, 2008)

Moreover, in contrast to Cuervo (2003); Pylkkänen (2002, 2008), we propose that some applicative arguments are free, i.e. they are not selected by the verb, and some are selected by the verb. Applicatives selected by the verb merge first as part of *v* or the root, and they *become* applicatives on movement to [*Spec;ApplP*]. In contrast, non-selected applicatives are merged directly in [*Sepc;ApplP*], i.e. they are *born* as applicatives. This difference for low applicatives is illustrated in (15).

(15) a. **selected low applicative**
recipient



b. **non-selected low applicative**
benefactive/malefactive



We discuss the reasons behind this analysis predominantly in Chapter 2 as well as to a lesser extent in Chapters 3 and 4. We illustrate selected applicatives with recipients, in Chapter 3, and experiencers, in Chapter 4, and non-selected applicatives with benefactives/malefactives, in Chapter 3.

We exemplify Polish high applicatives with dative experiencers in Chapter 4. We show how high applicatives resemble other high external arguments, subjects. However, because dative experiencers differ from prototypical subjects, we reject the idea that dative experiencers are merged in [*Spec;vP/VoiceP*], often proposed in the literature. We show how the alternative, high applicative, analysis of experiencer datives can explain the subject-like properties of experiencers, accounting at the same time for the differences between dative experiencers and prototypical, agent subjects.

Even though we focus predominantly on recipients as the example of Polish low applicatives and experiencers as the example of Polish high applicatives, the analysis proposed can be extended to other dative types in Polish. Based on the diagnostics proposed - depictive secondary predicate licensing, anaphor binding and adjunct participial clauses licensing - one can classify the other dative types as high or low applicatives. We leave a more detailed analysis of the other types to future research. However, we sketch possible directions of this research in concluding remarks in Chapter 5.

1.4. Thesis overview

The discussion in this thesis is divided into three parts. Part I *Preliminaries*, consists of the current chapter and Chapter 2. Chapter 2 introduces the theory of applicatives, which we assume in our analysis. Part II of the thesis, *Polish applicatives: two case studies*, focuses on the Polish data and consists of Chapter 3 and Chapter 4. In Chapter 3, we discuss Polish recipients and benefactives as an example of low applicatives in Polish. In Chapter 4, we analyse Polish experiencers as high applicatives. Part III, *The bigger picture and closing remarks*, consists of Chapter 5 and Chapter 6. Chapter 5 compares Polish applicatives to Icelandic ones. Based on A-movement in constructions with applicatives, we discuss two types of applicatives cross-linguistically, *vP*-internal and *ApplP*-internal ones. Chapter 6 concludes the discussion. We provide a brief overview of each chapter below.

Chapter 2 In Chapter 2, we briefly show that even though Polish dative arguments are objects, they do not resemble typical internal arguments. Instead, arguments marked with inherent dative appear to be syntactically external to the verb. We indicate that recent generative theories of syntax propose that such 'external' objects are applicative arguments. We introduce the basic notions of the **applicative theory**, assumed in this thesis, focusing particularly on the account of Pylkkänen (2002, 2008). In the same chapter, we discuss some

controversies around the theory of applicatives. We also briefly indicate how we solve these puzzles in the chapters to follow.

Firstly, we show that the diagnostics proposed in Pylkkänen and assumed in Cuervo are not discriminating enough for the Polish data. Therefore, we propose alternative tests for applicative types. Following the insights of a theory of binding, developed recently for Polish in, e.g. Gogłoza and Łęska (2018); Gogłoza et al. (2020); Witkoś et al. (2018a, 2020), we propose that high applicatives can antecede anaphors while low ones can antecede pronouns only. Related to that, we additionally propose that high applicatives can licence adjunct participial clauses, more precisely that they can control PRO of such clauses, while low applicatives cannot do so. We also show that low applicatives cannot be modified by depictive secondary predicates.

Secondly, assuming after Cuervo (2003) that all datives are licensed by the same functional head, *Appl*, we ask whether it is possible to unify all dative uses under one common meaning. Following a cognitive semantic analysis of Polish datives by Dąbrowska (1997), we propose that all Polish datives fall under the meaning of (potential) affectedness. Thus, while particular readings of datives differ, depending on the context and the meaning of the verbal predicate, all inherent datives are associated with a [+affected]-feature. By unifying all datives under the notion of affectedness, we consolidate Polish datives not only in syntactic but also in semantic terms.

Thirdly, we ask what it means to be an applied argument. We note that applicatives in the languages of Europe are often analysed as non-core, i.e. non-selected arguments. In contrast, researchers working on languages with prototypical applicatives, e.g. Bantu, Austronesian or Uto-Aztecan, highlight the core argument status of the applicative. We propose a participant implication test to differentiate between applicatives that are selected and those that are non-selected. Moreover, based on the literature on prototypical applicatives, we propose that both argument types, core/selected and extra/free/non-selected, can be of the applicative type.

Lastly, we show that prototypically, applied arguments are licensed by an applicative verbal suffix. We ask whether languages that lack applicative suffixes, e.g. Polish, can be taken to have applicative objects. Following others in the literature, we hypothesise that applicatives are not limited to arguments licensed by applicative suffixes. However, to differentiate between applied arguments that are licensed by verbal applicative morpheme and those that are not, we hypothesise that two types of applied arguments exist, verb-internal and verb-external. While verb-internal applicatives are projected as part of [*Spec;vP*] or [*Spec;VP*], the maximal projection of verb-external applicatives is

that of [*Spec;ApplP*]. We take Polish datives to be of the latter type.

Chapter 3 In Chapter 3, we focus on the **dative-accusative construction (DAC)** in Polish. We compare the Polish DAC to the English double object construction (DOC). **Firstly,** based on three diagnostics: nominalisation, extraction and distributive *po*-phrases, we show that the direct object (DO) of the Polish DAC is an internal argument while the dative-marked indirect object (IO) is external to the verb. Thus, we take the IO to be licensed by a verb-external applicative head, and the DO to be the complement of the root. Our analysis differs from the small clause analysis of English DOCs. In the small clause analysis of DOCs, the IO and DO are taken to be co-arguments, and both merge as part of a small-clause. Based on the lack of the restitutive meaning with *znów/znowu* 'again' in Polish DACs, we reject a small clause analysis for DACs in Polish. Instead, we propose a mono-clausal structure, where the verb-external IO is not a small clause subject, as proposed for English IOs, but a low applicative merged in [*Spec;ApplP*].

Secondly, based on the observed verb-internal character of the Polish DO and verb-external character of the Polish IO, we reject the low applicative structure proposed in Pylkkänen (2002, 2008). We further support our analysis, pointing to some more general syntactic, morphological, and semantic problems with Pylkkänen's structure of low applicatives. Moreover, we distinguish between low applicatives that are selected and those that are not selected by the verb. Based on the participant implication test, we show that the **recipient** IO of the Polish DAC is a core event participant, and therefore it is selected by the verb. The same diagnostic suggests that **benefactives/malefactives** are free arguments. To differentiate between the two, we propose that recipient low applicatives merge initially in [*Spec;*$\sqrt{}$*P*] and later move to [*Spec;ApplP*]. In contrast, benefactive low applicatives are merged directly in [*Spec;ApplP*]. Thus, we take recipients to be derived applicatives, in contrast to benefactives that are born as applicatives.

Thirdly, we comment briefly on a possible correlation between the availability of English-type resultatives and small clause structures associated with a single verb, as, e.g. in English DOCs. Such a correlation has been proposed in the literature, and the Polish data seems to support this observation. We show that in Polish, resultativity is predominantly encoded with prefixation, in contrast to English resultative adjectives. If then, the correlation between resultatives and complex verbs does exist, the lack of a small clause projection in Polish DACs is not surprising, as Polish does not show productive English-type resultatives.

Chapter 4 This chapter focuses on **high applicatives**, which we illustrate with Polish dative-marked **experiencers**. We ask whether Cuervo's (2003) analysis of Spanish dative experiencers as high applicatives can be applied to the Polish data. Recent accounts in the literature propose that Polish dative experiencers merge in [*Spec;vP*]. We show that although many syntactic observations point to a high projection of Polish dative experiencers, these dative DPs cannot merge in [*Spec;vP/VoiceP*], as the experiencer-theme (Exp-Th) structure is of the unaccusative type.

Firstly, we demonstrate that the experiencer argument of the Exp-Th construction is verb-external, while the theme is verb-internal. We demonstrate that based on extraction phenomena and the licensing of distributive *po*-phrases. Because the experiencer can antecede anaphors and license adjunctive participial clauses, we propose that it is a high applicative. We support our high applicative analysis of Polish dative experiencers providing arguments for an unaccusative analysis of the Exp-Th construction. We show that passivisation, *-no-/-to-* constructions, and distributive *po*-phrases indicate the unaccusative character of the construction. Based on these observations, we take it that the construction in question lacks the *Voice* projection.

Secondly, having proposed a high applicative, unaccusative analysis of the Polish dative Exp-Th construction, we comment briefly on the two possible orders of the construction. Namely, we discuss the experiencer-theme order, DAT-NOM, and the theme-experiencer order, NOM-DAT. We propose that either of the arguments of the unaccusative moves to a different position when projected preverbally. Experiencers move to [*Spec;CP*], and themes move to [*Spec;TP*]. We support our analysis with binding phenomena. Namely, we show that preverbal experiencers antecede both anaphors and pronouns, indicating that they reconstruct to [*Spec;ApplP*] concerning binding. In contrast, preverbal themes marked with nominative can antecede anaphors only. This observation indicates the binding domain is extended upon the movement of the theme. Thus, the theme must be in [*Spec;TP*], as from this position, the theme can act as an anaphor antecedent, but it cannot act an antecedent of pronouns.

Thirdly, based on the Exp-Th construction, we propose a **case valuation algorithm** for Polish. We show that the various case valuation algorithms that have been proposed account for Polish DACs, but do not account for the psychological verbs with dative or accusative experiencers. We dissociate accusative case valuation from the licensing of the prototypical external argument or its nominative case valuation. Instead, we propose that nominative case is valued on those arguments that agree with T, accusative case on arguments that do not agree with T, and lexical and inherent cases are valued by a given root or

functional head, respectively.

Chapter 5 This chapter draws the discussion in Part I and part II to a close. We return to the constructions discussed in Chapters 3 and 4, DACs and Exp-Ths. We compare A-movement in Polish DACs and Exp-Ths to A-movement in the same constructions in Icelandic. We advance the analysis based on the hypothesis introduced in Chapter 2, where we divided applicatives cross-linguistically into *vP*-internal and *vP*-external. We compare the Polish *vP*-external applicatives to the *vP*-internal applicatives of Icelandic. We focus on passivisation patterns in Polish and Icelandic DACs as well as A-movement in Polish and Icelandic Exp-Ths. Thus, focusing on the *vP/ApplP*-internal applicative split hypothesis, introduced in Chapter 2, we further develop the discussion on DACs, introduced in Chapter 3, and the Exp-Th construction, discussed in Chapter 4, this time from a cross-linguistic perspective.

Icelandic DACs resemble English DOCs, discussed in Chapter 3, in that they project a small clause, and the IO is taken to be the small clause subject. Thus, we take the Icelandic IO to be a *vP*-internal applicative, merged in [*Spec;vP*]. In contrast, as argued in Chapter 3, Polish applicatives appear to be *vP*-external. With these assumptions, **first**, we show how this difference results in different syntactic behaviour concerning passivisation in Icelandic and Polish DACs. We assume that v heads are phases and show that in Icelandic, when the DO is moved to the phase edge, it establishes equidistance to T with the IO. As a result, either of the objects can passivise. In contrast, in Polish, when the DO is moved to the phase edge, i.e. [*Spec;vP*], the DO does not establish the same equidistance with the IO, as the IO is merged in [*Spec;ApplP*], not in [*Spec;vP*].

Secondly, we show that similar observations concerning arguments' equidistance to T can be made about A-movement in Exp-Ths. Thus, whenever the Icelandic theme argument is moved to [*Spec;vP*], it will establish equidistance with the experiencer in [*Spec;vP*]. As a result of that, either of the arguments will be a potential target for further movement to [*Spec;TP*]. In contrast, in Polish, only the Theme argument can move to [*Spec;TP*], as no equidistance is established between the experiencer, in [*Spec;ApplP*] and the theme, in [*Spec;vP*].

Thirdly, accounting for A-movement in Polish and Icelandic DACs and Exp-Ths, we further argue that Polish datives in these constructions are inherent, whereas Icelandic datives are quirky, i.e. composed of a structural and inherent case combined. Assuming the *Activity Condition*, which requires a given goal to have at least one unvalued feature to be visible to syntax, we show that Polish datives are inactive and Icelandic datives are syntactically active. This syntactic activity of Icelandic datives is taken to be due to the added structural

case, lacking in Polish. Thus, in Chapter 5, based on the comparison of Polish with Icelandic, we show that some applicative datives can be *vP*-internal (e.g. Icelandic), some *vP*-external (e.g. Polish). Moreover, we show that some applicative datives can be syntactically active (e.g. Icelandic) and some appear to be invisible to syntax (e.g. Polish).

Chapter 6 Chapter 6 concludes the discussion in this thesis. We also briefly mention some possible points for future research, based on the account proposed.

2. The theory of applicatives

In this thesis, we propose an applicative account of arguments marked with inherent datives in Polish. We propose that Polish applicatives are *vP*-external, i.e. that they merge in [*Spec;ApplP*], and that they are not syntactically licensed by the verb itself. However, before we move to more detailed scrutiny of the data in Polish, in this chapter, we introduce the key ideas behind the theory of applicatives. We also discuss some of the issues that this theory comes with, and we hint at the solutions to the problems.

The discussion in this chapter is organised as follows. **Section 2.1** presents the subject/non-object-like properties of dative-marked objects. **Section 2.2** acquaints the reader with the applicative theory (Cuervo, 2003; Pylkkänen, 2002, 2008, e.g.). **Section 2.3** focuses on some questions that the theory of applicatives raises, including the diagnostics, the nature of the applied argument, the semantics of applied arguments, and the question of non-prototypical applicative contexts as true applicatives. **Section 2.4** concludes the discussion.

2.1. Polish datives as verb-external objects

One of the puzzling properties of dative-marked objects in Polish, with the exception of objects marked with lexical datives[1], is that they show some properties of subjects and are in these different from direct objects. As illustrated in (1) and (2), typical internal arguments can become a complement of **nominalisations**.

(1) a. podać **list**
to.pass letter.ACC
'to pass/hand a letter'

b. podanie/podawanie **listu**
passing.NOM letter.GEN

[1]The example in (i), below, illustrates an object marked with a lexical dative, as defined in Section 1.2 of Chapter 1.

(i) Tomek pomógł **Ewie**.
Tomek.NOM helped Ewa.DAT
'Tomek helped Ewa.'

'the passing/handing of a letter'

(2) a. pomóc **Ewie**
to.help Ewa.DAT
'to help Ewa'

b. pomoc/pomaganie **Ewie**.DAT
helping.NOM Ewa.DAT
'helping Ewa'

Under nominalisation, prototypical objects, marked with accusative, change their case into genitive, as in (1b). In the case of internal objects that are marked with a lexical case, as in (2), the case of the internal argument is preserved under nominalistion, as in (2b).

In contrast to prototypical internal arguments and regardless whether the case of the recipient is changed to genitive or preserved (as expected of lexical and inherent cases), the recipient object cannot act as a complement of nominalisation, as in (3b).

(3) a. podać **Ewie** list
to.pass/hand Ewa.DAT letter.ACC
'to pass/hand a letter to Ewa'

b. podanie *__Ewy__ /*__Ewie__
passing/handing.NOM Ewa.GEN /Ewa.DAT
Intended: 'the passing/handing of Ewa'

c. podane *__Ewy__ /*__Ewie__ list
passing/handing.NOM Ewa.GEN /Ewa.DAT letter.ACC
Intended: 'the passing/handing of Ewa letter'

One could say that (3b) is ungrammatical because it does not provide a complete expression. However, even when one adds the missing direct object, *list* 'letter', as in (3c), the nominalisation where it is the dative object that acts as the complement is ungrammatical. Thus, dative-marked indirect objects clearly differ from direct objects, accusative or dative. Namely, in contrast to indirect objects, direct objects can act as complements of nominalisation.

Moreover, indirect objects do not resemble internal arguments in that one cannot extract out of the former, while **extraction** out of the latter is allowed.[2] Consider the example of a *give*-type verb in (4).

(4) Lekarz dał [przestraszonej dziewczynce] [duży lizak].
doctor.NOM gave scared.DAT girl.DAT big.ACC lollipop.ACC
'The doctor gave the scared girl a big lollipop.'

[2]Note that extraction out of direct objects is limited to prenominal constituents of the attributive, demonstrative and quantificational type. As Rappaport (2000) notes, extraction out of adjunct-of-N and complement-of-N in the direct object position is blocked in Polish.

a. */??**Jakiej**$_i$ dał lekarz [t_i **dziewczynce**] [duży lizak]?
what.kind.of.DAT gave doctor.NOM girl.DAT big.ACC lollipop.ACC
Intended: 'Which did the doctor girl give a big lollipop?'

b. **Jaki**$_i$ dał lekarz [przestraszonej dziewczynce] [t_i **lizak**]?
what.kind.of.ACC gave doctor.NOM scared.DAT girl.DAT lollipop.ACC
'Which doctor give the scared girl a lollipop?'

In (4b), extraction out of the direct object is grammatical. Extraction out of the dative-marked indirect object is ungrammatical/significantly degraded, as in (4a).[3] Sentence (4a) is fully grammatical on pied-piping, as in (5), i.e. when the full DP is fronted.

(5) [**Jakiej dziewczynce**] dał lekarz [duży lizak]?
what.kind.of.DAT girl.DAT gave doctor.NOM big.ACC lollipop.ACC
'What kind of girl did the doctor give a big lollipop?'

This syntactic behaviour of indirect objects is similar to external arguments, which are islands for extraction, as in (6).

(6) a. [Przemiły lekarz] dał przestraszonej dziewczynce lizak.
very.kind.NOM doctor.NOM gave scared.DAT girl.DAT lollipop.ACC
'A very kind doctor gave the scared girl a lollipop.'

b. ***Jaki**$_i$ dał [t_i lekarz] przestraszonej dziewczynce lizak?
what.kind.of.NOM gave doctor.NOM scared.DAT girl.DAT lollipop.ACC
Intended: 'What kind of doctor gave the scared girl a lollipop?'

c. [**Jaki lekarz**] dał przestraszonej dziewczynce lizak?
what.kind.of.NOM doctor.NOM gave scared.DAT girl.DAT lollipop.ACC
'What kind of doctor gave the scared girl a lollipop?'

Thus, with regard to extraction phenomena, indirect objects show behaviour different to direct objects and similar to subjects. Similar observations as to

[3] Grammaticality judgments vary, although none of our informants fully accepted extraction out of the indirect object.

a subject-like behaviour can be made of other dative-marked arguments, e.g. experiencers, discussed in Chapter 4. In this thesis, we account for this subject-like behaviour of dative objects by taking them to be of the applicative type. In the section to follow, we introduce the theory of applicatives assumed in the reminder of this thesis.

2.2. Verb-external datives as applicatives

The applicative theory accounts for the properties of dative DPs by proposing that dative arguments are not licensed by a verb, but by a separate functional head, the **Appl(icative)**. The *Appl* head resembles *Voice*, which licenses external arguments. That is why indirect objects and external arguments share the properties discussed in Section 2.1. In this section, we introduce the main ideas behind the applicative theory, particularly as proposed in Pylkkänen (2002, 2008) and assumed after Pylkkänen in Cuervo (2003, 2010, 2014, 2015).

The theory of applicatives as developed in Pylkkänen (2002, 2008) is a theory of extra or **non-core arguments**. The theory focuses on the question of how lexical elements that are not core arguments of the verb get introduced into the structure. Following Pylkkänen's example, the English verb *to melt* minimally requires only one argument, as in (7a). However, the same predicate can introduce yet another argument, as in (7b), or even two arguments, as in (7c).

(7) a. **The ice** melted. (English)

b. **John** melted the ice.

c. **John** melted **me** some ice.

(Pylkkänen, 2008, 1, ex.1)

Such extra arguments are taken not to be licensed by the verb/root, but rather by a separate functional head, *Voice* for subjects and *Applicative* for indirect objects.

The structure variation illustrated in (7) is a pervasive property of human languages. For example the Polish verb *topić* 'to melt' shows the same environments as the English examples in (7).

(8) a. **Lód** stopił się. (Polish)
ice melted REFL
'The ice melted.'

b. **Jan** stopił lód.
Jan.NOM melted ice.ACC
'Jan melted the ice.'

c. **Jan** stopił **mi** lód.
Jan.NOM melted me.DAT ice.ACC
'Jan melted me the ice.'

Under the applicative theory of Pylkkänen, such extra arguments are added freely to the verb; they can also be freely dropped. However, as we argue in more detail in Section 2.3.3, not all phonologically unexpressed arguments are created equal; some are selected by the verb and some are not.

In what follows, we also argue that applicative arguments should not be limited to arguments not selected by the predicate, as seems to follow from the definition of applicatives in Cuervo (2003); Pylkkänen (2002, 2008). What is crucial for now is that rather than following Cuervo (2003); Pylkkänen (2002, 2008) in taking the applicative theory to be one of extra argument licensing, we take it to be a theory of arguments syntactically licensed by a head of an applicative flavour. What is more, in Section 2.3.4 of this chapter, we hypothesise that applicative licensing heads come in two flavours, verbal and non-verbal. We differentiate applicative arguments that are prototypical, licensed by a verbal suffix as direct object in e.g. Bantu or Salish languages, from atypical applicatives, which seem to occur in some languages of Europe, e.g. in Polish.

The very name **applicative** or **applicative construction** originates from research on Native American languages, in particular Uto-Aztecan; it was later adopted by researchers working on Bantu languages and it is now used for similar constructions in other languages including, e.g. some Austronesian, Salish or Mayan languages (Polinsky, 2013). The term *applicative* in these languages is used to denote either the applicative construction or the verb of such construction.

Prototypical applicative constructions are marked with a special verbal morphology - an applicative morpheme. Because the applicative morpheme introduces an extra argument, it is typically analysed as a valency-increasing element (e.g. Baker, 1988a; Bresnan and Moshi, 1993). The examples in (9) illustrate an applicative construction in the Bantu language Kinyarwanda.

(9) a. Umw-ana y-a-menn-ye igi-kombe. (Kinyarwanda)
1-child 1S-PAST-break-PERF 7-cup
'The child broke the cup.'

b. Umw-ana y-a-men-**ey**-e igi-kombe **mama** w-e. (Kinyarwanda)
1-child 1S-PAST-break-APPL-PERF 7-cup 1.mother 1-POSS
'The child broke the cup for his/her mother.'

(Jerro, 2016, 1, ex. 1a-b)

In (9a), the verb *ku-mena* 'to break' is syntactically transitive, with two arguments, a subject and an object. In (9b), the applicative morpheme *-er*, realised as *-ey*, licenses an extra object, *mama* 'mother', interpreted as a beneficiary of the event. Similarly, in Tukang Besi, an Austronesian language spoken in Indonesia, an applicative morpheme *-ako* adds a third argument to a typically two-place predicate with the meaning of 'to fetch':

(10) a. No-ala te kau. (Tukang Besi)
3.REALIS-fetch the wood
'She fetched the wood.'

b. No-ala-**ako** te **ina-su** te kau. (Tukang Besi)
3.REALIS-fetch-APPL the mother-my the wood
'She fetched the wood (as a favour) for my mother.'

(Donohue, 1999, 231, ex. 35a-b)

Arguments licensed by an applicative suffix are most commonly benefactive/malefactive, but they can also take other thematic roles, including e.g. locative, instrument, possessor, or comitative. Consider an extra instrument argument licensed by the applicative morpheme in Chichewa (Bantu) in (11), and in Tukang Besi in (12):

(11) Mavuto a-na-umb-**ir**-a **mpeni** mtsuko. (Chichewa)
Mavuto SP-PAST-mold-APPL-ASP knife waterpot
'Mavuto molded the waterpot with a knife.'

(Baker, 1988a, 354)

(12) No-wila-**ako** te **kolikoli**. (Tukang Besi)
3R-go-APPL CORE canoe
'He went by means of a canoe.'

(Donohue, 1999, 235, ex. 61)

Note also that the argument licensed by the applicative morpheme is typically, although not exclusively, added to a two-place predicate. Therefore, typically, applicative constructions are a particular instance of a double object construction.

Based on **ditransitive constructions** in various languages including, e.g. English, Japanese, Korean, Luganda, Venda and Albanian, Pylkkänen (2002, 2008) argues that cross-linguistically, the indirect object of a ditransitive verb can be of two types, a **low applicative** or a **high applicative**. The Bantu languages, e.g. Chaga or Venda, have high applicatives, while English is an example of a language with low applicatives.

(13) **English-type low applicative object**

a. I baked a cake. (English)

b. I baked **him** a cake.

(Pylkkänen, 2002, 17, ex. 11a-b)

(14) **Venda-type high applicative object**

a. Mukasa o-nok-is-a mahaḓa. (Venda)
Mukasa 3SG.PAST-melt-CAUSE-FV snow
'Mukasa melted the snow.'

b. Mukasa o-nok-is-**el**-a **Katonga** mahaḓa.
Mukasa 3SG.PAST-melt-CAUSE-APPL-FV Katonga snow
(Venda)

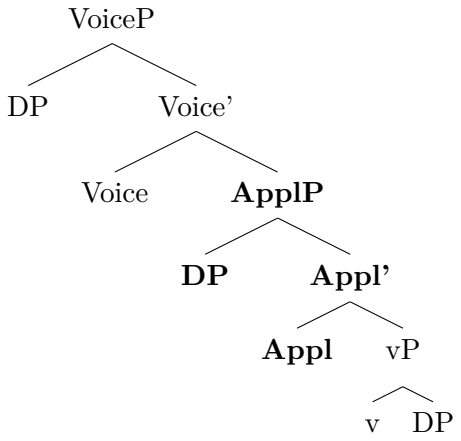
'Mukasa melted Katonga the snow.'

(Pylkkänen, 2002, 9-10, ex. 2b-c)

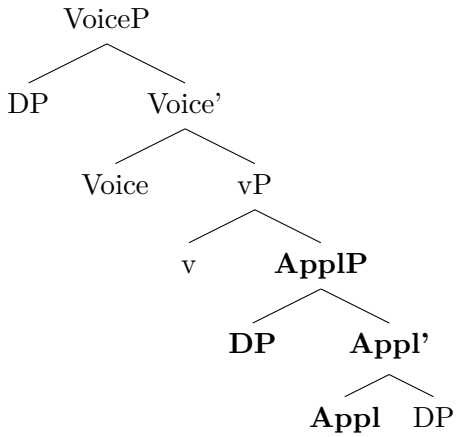
As argued by Pylkkänen, the semantics of the low applicative differs significantly from the semantics of the high applicative. Low applicatives denote a relation between two individuals, in (13) between the indirect object *him* and the direct object *a cake*. High applicatives denote a relation between an individual and an event, in (14) between the applied object *Katonga* and the event of melting the snow.

Pylkkänen proposes that syntactically, high applicatives project above the verb and low applicatives attach below the verb, as illustrated in (15):

(15) a. **high applicative**



b. **low applicative**



(Pylkkänen, 2002, 19, ex. 16)

Merging above *vP*, "[high] applicatives are very much like the external argument introducing head: they simply add another participant to the event described by the verb. In contrast, low applied arguments bear no semantic relation to the verb whatsoever: they only bear a transfer of possession relation to the direct object" (Pylkkänen, 2002, 19).

The high applicative head resembles the external argument licensing head *Voice* of Kratzer (1996). *Voice* is a functional head denoting a thematic relation which holds between the external argument and the event described by the verb. The two are linked through **Event Identification**, stated in (16), where s is the type of event (or situation), e is the type of individuals, and t is the type of truth-values. Entities of type $\langle s,t\rangle$ are functions from events to truth-values and entities of type $\langle e,\langle s,t\rangle\rangle$ are functions that map individuals to function from events to truth-values.

(16) **Event Identification**

f	g	→	h
⟨e,⟨s,t⟩⟩	⟨s,t⟩		⟨e,⟨s,t ⟩⟩
			$\lambda x_e \lambda e_s$ [f(x)(e) & g(e)]

(Kratzer, 1996, 122, ex.23)

Event Identification is a compositional operation which combines the external argument with the event that is denoted by the VP. This operation allows for the addition of various conditions to the event that the VP describes. For example, *Voice* can add the condition that the event has an agent. In such a case, *Voice* will specify that there is an agent and that this agent is the agent of the event which is denoted by the VP.

In the system of Pylkkänen (2002, 2008), the high applicative head resembles the *Voice* head in relating the argument in its specifier position to the event.

Thus, high applicatives are combined with the event through Event Identification, like subjects are, as in (17).

(17) **High Appl**
λx.λe.Appl(e, x)
(collapsing Appl_{Ben}, Appl_{Instr}, Appl_{Loc}, etc.)[4]
(Pylkkänen, 2008, 17, ex.13)

In contrast, the low applicative head relates the applied argument to another individual denoted by the argument, not to the event. However, as we show in Chapter 3, there are reasons to believe that even low applied arguments are related to the event through the applicative head, the way high applicatives are. Thus, in this thesis, we hypothesise that *Appl*, high or low, resembles *Voice* in relating the argument in its specifier position to the event denoted by $vP/\sqrt{P}$. We discuss the matter in more detail in Chapter 3.

For Pylkkänen (2002, 2008), the low applicative head relates the indirect object (the applicative) to the direct object. Pylkkänen proposes two types, recipient applicative and source applicative.

(18) a. **Low-Appl_{TO} (Recipient applicative)**
λx.λy.$\lambda\text{f}_{<e,<s,t>>}$.$\lambda$e. f(e,x) & theme(e,x) & to-the-possession(x,y)

b. **Low-Appl_{FROM} (Source applicative)**
λx.λy.$\lambda\text{f}_{<e<s,t>>}$.$\lambda$e. f(e,x) & theme(e,x) & from-the-possession(x,y)
(Pylkkänen, 2008, 18, ex. 15)

Under (18), the entity denoted by the subject in *I baked him a cake* bakes the cake *to the possession of* the indirect object. An English sentence such as *Tom baked Kate a cake* cannot mean: 'Tom did the baking for Kate so that Kate would not have to do it herself', i.e. the indirect object in (13) cannot be interpreted as a benefactive. In contrast, in the Venda example in (14) there is no notion of possession, Mukasa melts the snow for/instead of Katonga, i.e. to the benefit of the applied object. Mukasa does not melt snow that belongs to Katonga, or to Katonga's possession. Thus, following (18), the English applicative seems to be of the low type, while the applicative of Venda seems to be high.

Pylkkänen (2002, 2008) indicates that the semantics and structure of low and high applicatives make the following two core predictions:

(19) a. **Diagnostic 1: transitivity restrictions**
Only high applicative heads should be able to combine with unergatives. Since a low applicative head denotes a relation between the

[4]By assumption, the universal inventory of functional heads includes several other applicative heads, e.g. instrumental, benefactive, malefactive, etc. Whichever head occurs in a given language is a matter of selection.

direct and indirect object, it cannot appear in a structure that lacks a direct object.

b. **Diagnostics 2: verb semantics**
Since low applicatives imply a transfer of possession, they make no sense with verbs that are completely static: for example, an event of holding a bag does not plausibly result in the bag ending up in somebody's possession. High applicatives, on the other hand, should have no problem combining with verbs such as *hold*: it is perfectly plausible that somebody would benefit from a bag-holding event.

(Pylkkänen, 2002, 23)
(Pylkkänen, 2008, 18-19, ex. 17-18)

Based on these two diagnostics, Pylkkänen (2002) argues that the English, Japanese and Korean double object constructions pattern as low applicatives, while those in Luganda, Venda and Albanian pattern as high applicatives. In other words, in English, Japanese and Korean, neither unergatives nor stative verbs can add extra arguments, while in Luganda, Venda and Albanian they can as illustrated for English and Venda in (20) and (21), respectively.

(20) a. *I ran **him**. (English)
b. *I held **him** the bag.

(Pylkkänen, 2002, 24, ex. 28a-b)

(21) a. Ndi-do-shum-el-a **musadzi**. (Venda)
1SG-FUT-work-APPL-FV lady
'I will work for the lady.'
b. Nd-o-far-el-a **Mukasa**. (Venda)
1sg-PAST-hold-APPL-FV Mukasa
'I held the pot for Mukasa.'

(Pylkkänen, 2002, 25, ex. 32a-b)

However, while these diagnostics show a clear distinction between English and Chaga, Venda or Albanian, it can be demonstrated that the behaviour of applied arguments in many languages conforms to one diagnostics but not to the other one. Thus, applicatives in some languages do not fall easily in one or the other group. We return to this problem in Section 2.3.1 of this chapter, where we also propose additional, more reliable applicative diagnostics for Polish. For now, however, let us note one more issue concerning the diagnostics proposed in Pylkkänen (2002, 2008), namely the fact that they seem to suggest that a given language can have only one type of applicatives, either low or high.

However, many languages have two types of applicatives, depending on verb semantics and transitivity, or passivisation patterns. For example, Kinyarwanda,

a Bantu language, has two types of applicatives. Both types behave differently with respect to passivisation. Benefactive applicatives, in (22), are asymmetric whereas goal applicatives, in (23), are symmetric.

(22) **benefactive applicative - symmetric passive**

a. **Umukoôbwa** a-ra-andik-ir-w-a íbárúwa
girl SP-RPES-write-APPL-PASS-ASP letter
n'ûmuhuûngu. (Kinyarwanda)
by boy
'The girl is having the letter written for her by the boy.'

b. **Íbárúwa** i-ra-andik-ir-w-a umukoôbwa
letter SP-PRES-write-APPL-PASS-ASP girl
n'ûmuhuûngu. (Kinyarwanda)
by boy
'The letter is written for the girl by the boy.'

(Kimenyi, 1980, in McGinnis 2001, ex.4a-b,)

(23) **goal applicative - asymmetric passive**

a. **Ishuŭri** ry-oohere-j–w-é-ho igitabo n'núúmwáalímu.
school it-send-ASP-PASS-ASP-LOC book by-teacher
(Kinyarwanda)

'The school was sent the book by the teacher.'

b. ***Igitabo** cy-oohere-j-w-é-ho ishuŭri n'úúwmáalímu.
book it-send-ASP-PASS-ASP-LOC school by-teacher
(Kinyarwanda)

Intended: 'The book was sent to school by the teacher.'

(Kimenyi, 1980, in McGinnis 2001, ex.5a-b)

As discussed more extensively in Chapter 5, McGinnis (2001, 2002, a.o.) argues that applicative constructions which allow symmetric passives involve high applicatives. In contrast, applicative constructions which have asymmetric passives involve low applicatives. Thus, both high and low applicatives are present in Kinyarwanda.

Building on Pylkkänen (2002, 2008), Cuervo (2003) argues that both low and high applicatives are present also in Spanish. Whenever the notion of a possession transfer is involved, a low applicative is licensed, as in (24a). A lack of transfer indicates a high applicative use, as in (24b).

(24) a. Pablo le mundó un diccionario a **Gabi**. (Spanish)
Pablo CL.DAT sent a dictionary Gabi.DAT
'Pablo sent Gabi a dictionary.'

(Cuervo, 2003, 46, ex. 28a)

b. A **Daniela** le gustan los gatos. (Spanish)
Daniela.DAT CL.DAT like the cats
'Daniela likes cats.'

(Cuervo, 2003, 165, ex.6)

Based on the diagnostic referring to the presence of the notion of a possession transfer, similarly to Spanish, Polish seems to have both low and high applicatives, as in (25).

(25) a. Tomek dał **Ewie** upominek.
Tomek.NOM gave Ewa.DAT gift.ACC
'Tomek gave Ewa a gift.'

b. **Tomkowi** podoba się Ewa.
Tomek.DAT appeals REFL Ewa.NOM
'Ewa appeals to Tomek.'

In (22), the dynamic transitive verb *dać* 'to give' denotes the notion of transfer of possession, and therefore the indirect object seems to be a low applicative. In contrast, in (24), the stativity of the verb and the lack of possession transfer indicate that the indirect object is a high applicative. Both applicative types in Polish will be discussed in the chapters to follow - low applicatives in Chapter 3 and high applicatives in Chapter 4. However, before we turn to the analysis of Polish applicatives, in the section to follow, we discuss some questions that the theory of applicatives raises.

2.3. Applicative theory puzzles

In this section, we discuss some of the disputes concerning the applicative theory. We also hint at the solutions which we propose in the chapters to follow. The discussion is organised as follows. In **Section 2.3.1**, we explore the applicative diagnostics proposed in Pylkkänen (2002, 2008) and assumed in Cuervo (2003). We put forward additional tests, which provide more stable results for Polish. In **Section 2.3.2**, we ask whether there is anything else that could unify Polish inherent datives, apart from the *Appl* head licensing them. We follow a cognitive semantics theory of datives in Polish by Dąbrowska (1997), indicating that there is a way to consolidate all dative uses under one notion. In **Section 2.3.3**, we discuss the problem of what it means to be an applicative argument. The theory of applicatives, as proposed in Cuervo (2003); Pylkkänen (2002, 2008), is taken to be a theory of non-core arguments. However, for some, non-core arguments are oblique arguments. Others understand the same notion as arguments that are not part of the verb's valency, i.e. free arguments. As a result, for some, applicatives are non-core arguments while for others, they are exactly

the opposite, i.e. core arguments. Therefore, we clarify what applicative arguments are taken to mean in this thesis. In **Section 2.3.4**, we ask a more general question, namely whether Polish, or other languages that lack prototypical applicative constructions, can be taken to project the *Appl* head. We hypothesise that cross-linguistically, two types of applicatives are present, *vP*-internal and *ApplP*-internal.

2.3.1. How discriminating are the diagnostics?

In Pylkkänen (2002, 2008), benefactives are analysed as high applicatives, i.e arguments that are related to the event. As Pylkkänen argues, English lacks high applicatives, and therefore it is impossible to say **John held Mary a bag,* where Mary benefits from the event of her bag being held. Under the analysis of benefactives as high applicatives relating an individual to an event, and low applicatives as denoting a transfer of possession, relating two individuals, benefactives (high) and recipients (low) are two different types. Nevertheless, whenever a verb denotes a transfer of possession, such transfer could be to the receiver's benefit. For example, in (26), one could say that the gift was an object transferred from *Tomek* to *Ewa* and that *Ewa* benefited from the event of being given the gift.

(26) Tomek dał **Ewie** upominek.
Tomek.NOM gave Ewa.DAT gift.ACC
'Tomek gave Ewa a gift.'

If so, is then the indirect object of *dać* 'to give' a hybrid of a low and high applicative? Or, are the two types of applicatives more alike, at least in Polish, than the diagnostic of Pylkkänen suggests? For Polish, it seems that binding can provide an additional diagnostic for the relative position of a given dative. Incidentally, binding phenomena suggest that Polish benefactives and recipients are both of the low applicative type - in contrast to the indistinguishable semantic diagnostic of Pylkkänen.

In a recent theory of binding, Gogłoza and Łęska (2018); Gogłoza et al. (2020); Witkoś et al. (2018a,b, 2020) argue that the **binding potential of a given antecedent is indicative of its position in the structure**. The authors assume the Larsonian VP-shell structure (Larson, 1988, 1990, et seq.), where the verb decomposes into a lexical 'big' *V*, which licenses the object(s) of the verb, and a functional little *v*, which licenses the external argument. Under this theory of binding, arguments projected higher in the structure, i.e. [*Spec;vP*], are expected to be licit anaphor antecedents. In contrast, lower arguments, in [*Spec;VP*], can antecede pronouns only. We strongly believe that the

insights of this theory can be extended to the architecture of grammar proposed in this thesis, where: a) the verb decomposes into a root and a categorising functional head *v* (Cuervo, 2003; Marantz, 1997, a.o.), b) the external argument is licensed by *Voice* (Cuervo, 2003; Kratzer, 1996; Pylkkänen, 2002, 2008, a.o.), and c) *Appl* licenses applicative arguments.

Taking [*Spec;vP*] to be a close 'relative' (although not a direct equivalent, as discussed in more detail in Chapter 4) of [*Spec;Appl*P_{high}], we expect high applicatives, projected above *v*, to act as anaphor antecedents. In contrast, we predict low applicatives, projected below *v*, to be able to antecede pronouns only, never anaphors. Consider the difference between the sentences in (27) and (28).

(27) **high applicative - antecedent of anaphors**[5]

a. **Tomkowi**$_i$ żal **swojej**$_i$ koleżanki z pracy.
Tomek.DAT sorrow self's.GEN colleague.GEN from work.GEN
'Tomek feels sorry for his (female) colleague from work.'

b. **Tomkowi**$_i$ dobrze się spało w **swoim**$_i$ łóżku.
Tomek.DAT well REFL slept in self's.LOC bed.LOC
'Tomek slept well in his bed.'

(28) **low - antecedent of pronouns**

a. Tomek ugotował **Ewie**$_i$ ***swoją**$_i$ **/jej**$_i$ ulubioną zupę.
Tomek.NOM cooked Ewa.DAT self's.DAT /her.GEN favourite.ACC soup.ACC
'Tomek cooked Ewa her favourite soup.'

b. Tomek złamał **Ewie**$_i$ ***swój**$_i$ **/jej**$_i$ nos.
Tomek.NOM broke Ewa.DAT self's.ACC /her.GEN nose.ACC
'Tomek broke Ewa's nose.'

The ability of high applicatives to antecede anaphors draws an analogy between high applicatives and prototypical nominative-marked subjects. Thus, high applicatives are expected to project high in the structure, somewhere where the

[5]Note that some native speakers allow variation in binding by high applicatives, permitting either a pronoun or an anaphor as their bindee.

(i) **Tomkowi**$_i$ żal **swojej**$_i$ **/jego**$_i$ koleżanki z pracy.
Tomek.DAT sorrow self's /his colleague from work
'Tomek feels sorry for his (female) colleague from work.'

However, while some variation is possible with high applicatives, low applicatives can bind only pronouns, never anaphors. Thus, we consider the diagnostics to be a reliable means to differentiate between low and high applicatives. For more discussion on the speaker variation in binding by high applicatives see, e.g. Gogłoza et al. (2018); Witkoś et al. (2018a).

prototypical external argument is licensed. We take this position to be above the verbalising head, *v*. In contrast, low applicatives, which cannot antecede anaphors, are more object-like, and therefore, similarly to objects, low applicatives project below *v*.

As already mentioned and demonstrated in (28a), the binding diagnostic shows that because Polish benefactives cannot antecede anaphors, they should be analysed as low applicatives, just like recipients. Compare (28a), projecting a benefactive, with (29) which illustrates a recipient.

(29) Tomek wysłał **Ewie**$_i$ ***swoją**$_i$ **/jej**$_i$ ulubioną
Tomek.NOM sent Ewa.DAT self's.ACC /her.GEN favourite.ACC
książkę.
book.ACC
'Tomek sent Ewa her favourite book.'

If recipients and benefactives are indeed projected in the same position, as indicated by the binding test, this could explain why Pylkkänen's verb semantics diagnostic fails to distinguish between the two, at least in Polish. Note, however, that even though both Polish recipients and benefactives are low applicatives, they show some differences. In Chapter 3, we discuss these differences in more detail.

Another test, which seems to reliably distinguish high from low applicatives in Polish is that of **adjunctive participial clauses** licensing. Namely, high applicatives can license adjunctive participial clauses, while low applicatives cannot. Similarly to anaphor licensing, the ability to control the PRO of adjunct clauses makes the controller similar to prototypical external arguments suggesting, in turn, the controller's high position. Consider the difference between the sentences in (30) and (31).

(30) a. **high applicative - able to license the participial clause**
[**PRO**$_i$ Siedząc samotnie w domu w Sylwestra], **Tomkowi**$_i$
sitting alone in home in New.Year's.Eve, Tomek.DAT
zrobiło się żal samego siebie.
became REFL sorrow alone self
'Sitting home alone on New Year's Eve, Tomek started feeling sorry for himself.'

b. [**PRO**$_i$ Zmieniwszy pościel], **Tomkowi**$_i$ dobrze się
having.changed bed.sheets Tomek.DAT well REFL
spało.
slept.
'Having changed the bed sheets, Tomek slept well.'

(31) a. **low applicative - unable to license the participial clause**

Tomek$_i$ napisał **Ewie**$_j$ SMS [**PRO**$_{i/*j}$ będąc w pracy].
Tomek.NOM wrote Ewa.DAT SMS [PRO being in work]
'Tomek$_i$ wrote Ewa$_i$ a text message when he$_i$ /*she$_j$ was at work.'

b. [**PRO**$_{i/*j}$ Jadąc rowerem], Tomek$_i$ złamał **Ewie**$_j$ nos.
riding bike, Tomek.NOM broke Ewa.DAT nose.ACC
'Tomek$_i$ broke Ewa's$_j$ nose when he$_i$ /*she$_j$ was riding a bike.'

In (30), the high applicative dative can control the PRO of the participial clause; in (31), the low applicative is not able to do so. The ability of high applicative to license such participial clauses makes them similar to subjects, which in turn suggests that high applicatives are projected high, i.e. above *v*.

Similarly, the licensing of **depictive secondary predicates** can demonstrate the difference between low and high applicatives. This test is proposed by Pylkkänen (2002, 2008) herself, although, under Pylkkänen's analysis, it is expected to be unreliable for Polish. Pylkkänen (2002, 2008) suggests that the depictive secondary predication test is only available for secondary depictive predicates of the English type, which Polish lacks. In English, secondary depictive predicates can modify direct objects and subjects, except for implied passive external arguments. In contrast, secondary predicates cannot modify indirect objects, i.e. low applicatives, or implied arguments. (32) illustrates this difference for English.

(32) a. John ate **the meat raw**.

b. **John** wrote this letter **drunk**.

c. *This letter was written **drunk**.

d. *John$_i$ told **Mary**$_j$ the news **drunk**$_{i/*j}$.[6]

(adopted from Pylkkänen, 2002, 26, ex. 35)

Based on (32) and the observation that English lacks high applicatives, Pylkkänen proposes that cross-linguistically, high applicatives can be modified by secondary depictives, while low applicatives cannot. Compare the low applicative of English in (32d), which cannot occur with depictives, with (33), a Luganda's high applicative that can be modified by a depictive.

(33) a. Mustafa$_i$ ya-ko-le-dde **Katonga**$_j$ nga
Mustafa 3SG.PAST-work-APPL-PAST Katonga
mulwadde$_{*i/j}$. (Luganda)
sick
'Mustafa worked for Katonga while Katonga was sick.'

[6]Note that, although Pylkkänen's marking of the sentence's grammaticality does not indicate that, the sentence is ungrammatical only under the meaning where it is Mary that is drunk, not when John is drunk.

b. Mukasa$_i$ ya-ko-le-dde **Katonga**$_j$ nga
Mukasa 3SG.PAST-work-APPL-PAST Katonga
akooye$_{*i/j}$. (Luganda)
tired
'Mukasa worked for Katonga while Katonga was tired.'

(adopted from Pylkkänen, 2008, 31, ex. 43)

As Pylkkänen notes, the secondary predication test is reliable only for languages that license secondary depictives of the English type. Therefore, for Pylkkänen, this test is not available for languages which license depictives with implicit external arguments of passives, in contrast to the English example in (32c).

Nevertheless, the ungrammaticality of the English example in (32c) is questionable, as it has been observed in the literature that implied external arguments can license secondary predicates, also in English, indicating that the implied external argument is semantically and syntactically active in passives (Baker, 1988b; Pitteroff and Schäfer, 2018a,b, a.o.). Consider some examples of secondary predicates in passives in other languages in (34).

(34) a. Dieser Brief wurde sicherlich **betrunken** geschrieben. (German)
this letter was surely drunk written
'This letter was surely written by a drunk writer.

b. De deur werd **naakt** geopend. (Dutch)
the door was naked opened
'The door was opened by a naked person.'

c. Døren ble åpnet **naken**. (Norwegian)
the.door was opened naked
'The door was opened by a naked person.'

d. La lettre a sans doute été écrite **saoul**. (French)
the letter has without doubt been written drunk
'The letter has without double been written drunk.'

e. The letter was written **drunk**.[7] (English)

(Pitteroff and Schäfer, 2018a, ex. 18-20)

As demonstrated in (35), in Polish, implied external arguments can also be modified by depictive secondary predicates.

(35) Ten list został napisany (przez **Tomka**$_i$) **po pijaku**$_i$.
this letter.NOM was written (by Tomek) PO drunk.LOC
'This letter was written drunk.'

[7] The acceptability of this sentence has been consulted by the authors with 8 native speakers of English, using a 7-point Likert scale (1- unacceptable, 7-acceptable). The mean score for this example was 5.6.

Therefore, it does not matter whether the argument that licenses the depictive secondary predicate is implicit or not. The crucial observation that Pylkkänen makes is the fact that depictive secondary predicates can distinguish between high and low applicatives, where only high applicatives can license secondary depictive predicates.

Adjectival secondary predicates, as in English, are very restricted and rather non-productive in Polish (Franks, 1995; Hentschel, 2009; Szajbel-Keck, 2015, e.g.). This is not to say that adjectival depictive secondary predicates are not available at all in Polish. However, only a small group of adjectives can appear as depictives. Also, such depictives seem more acceptable as modifiers of subjects rather than direct objects, as illustrated in (36), although many native-speakers will accept (36c).

(36) a. **Stefan**$_i$ wrócił do domu nieprzyjemnie **podniecony**$_i$.
Stefan.NOM returned to home unplesantly aroused.NOM
'Stefan returned home unpleasantly aroused.' (NKJP)

b. **Tata**$_i$ przyjechał **trzeźwy**$_i$ i **blady**$_i$.
dad.NOM arrived sober.NOM and pale.NOM
'Dad arrived sober and pale.' (NKJP)

c. Anna lubi pić **herbatę**$_i$?**gorącą**$_i$.
Anna likes to.drink tea.ACC hot.ACC
'Anna likes to drink her tea hot.'

(Szajbel-Keck, 2015, 2, ex.0.3-0.5)

Nevertheless, there are alternative ways of expressing secondary predication in Polish, namely prepositional depictives, illustrated in (37).

(37) a. Jan zjadł **mięso**$_i$ **na surowo**$_i$.
Jan ate meat NA raw
'Jan ate the meat raw.'

b. **Jan**$_i$ napisał ten list **po pijanemu**$_i$.
Jan.NOM wrote this letter.ACC PO drunk.DAT
'Jan wrote this letter drunk.'

Goeringer (1998) calls such combinations of a preposition and an adjective (sometimes also a noun) a *bipartite*. Szajbel-Keck (2014) shows that such construals are true secondary predicates, depictive or resultative.

Crucially for the discussion in this chapter, while prepositional secondary depictive predicates can occur with subjects (high external arguments), as in (37a), and direct objects (internal arguments), as in (37b), they cannot occur with indirect objects (low external arguments), i.e. low applicatives. We illustrate this observation in (38).

(38) Tomek$_i$ dał Ewie$_j$ kwiatki **po pijanemu**$_{i/*j}$ /**po**
Tomek.M.NOM gave Ewa.F.DAT flowers.ACC PO drunk.M.DAT /PO
pijaku$_{i/*j}$.
drunk.M.LOC
'Tomek gave Ewa flowers while he/*she was drunk.'

Po pijaku 'while drunk' illustrates a colloquial expression, derived from the locative-case governing preposition *po* and the noun *pijak* 'drunk'. *Po pijanemu* illustrates the less colloquial expression, and it is composed of the dative-governing preposition *po* and the adjective *pijany* 'drunk'. In both cases, the noun/adjective complementing *po* (glossed as 'PO') is limited to masculine/neuter form, even when it modifies a feminine DP, as in (39).

(39) Ewa$_i$ dała Tomkowi$_j$ kwiatki **po pijanemu**$_{i/*j}$ /**po**
Ewa.F.NOM gave Tomek.M.DAT flowers.ACC PO drunk.M.DAT /PO
pijaku$_{i/*j}$.
drunk.M.LOC
'Ewa gave Tomek flowers while she/*he was drunk.'

Thus, in (38), the ungrammaticality of *Ewa* modified by *po pijanemu* 'while drunk' cannot be due to the gender mismatch, rather the inability of low applicatives to be modified by depictives. In contrast to low applicatives, as illustrated in (40), high applicatives are acceptable with depictives.[8]

(40) Tomkowi$_i$ /Ewie$_j$ dobrze się spało **po pijanemu**$_{i/j}$ /**po**
Tomek.M.DAT /Ewa.F.DAT well REFL slept PO drunk.M.DAT /PO
pijaku$_i$.
drunk.M.LOC
'Tomek/Ewa slept well while drunk.'

The ability of high applicatives to license secondary depictive predicates makes them similar to subjects, as illustrated already in (36) and (37). In turn, this indicates, similarly to the binding diagnostics and the licensing of participial clauses, that high applicatives must be projected high enough to be able to show such subject-like characteristics.

Summing up, while Pylkkänen's verb semantics and verb transitivity diagnostics for applicatives provide some insights as to the nature of their types, in some cases, e.g. benefactive uses in Polish, they are not strong enough to provide a clear distinction between the two applicative types. Only one test proposed in Pylkkänen (2002, 2008) seems to provide reliable results with regard to the applicative type in Polish, namely the licensing of secondary depictives. Therefore,

[8]For reasons discussed in Chapter 4, this diagnostic is less reliable for experiencer high applicatives.

in order to strengthen the applicative diagnostics for Polish, we follow Gogłoza and Łęska (2018); Gogłoza et al. (2020); Witkoś et al. (2018a,b, 2020) and take binding to be an extra diagnostic indicative of the height of dative projection. In the case of dative-marked arguments, if they can antecede anaphors, they are taken to be projected high. If a given dative can antecede pronouns only, it is taken to be merged low. By extension, high applicatives are taken to be able to control the PRO of participial adjunct clauses, while low ones cannot do so. The ability to both antecede anaphors and license participial adjunct clauses indicates that high applicatives have subject-like behaviour, and thus they are projected high in the structure. In what follows, we depend predominantly on these three diagnostics for Polish, i.e. binding, licensing of adjunct clauses and depictive secondary predicates.

2.3.2. Can dative arguments be unified semantically?

The applicative head is taken to ontologically resemble the subject-licensing head, namely *Voice* (Cuervo, 2003; Pylkkänen, 2002, 2008). One of the characteristic features of subjects is the fact that they have relatively unified meanings.

(41) a. **Willow** rode a white horse. (agent)
b. **Willow** danced. (agent)
c. **The sun** melted the butter. (causer)
d. **Willow** loves tomatoes. (experiencer)
e. **Willow** had a dream. (experiencer)
f. **Willow** has a bicycle. (possessor)
g. **The clover** has four leaves. (possessor)
(Cuervo, 2003, 12, ex. 1)

As illustrated in (41), subjects can take various thematic roles, e.g. agents, causers, experiencers, possessors. However, these possible theta roles for subjects all generally fall into two main categories of: a) *doers*, i.e. agents or causers, and b) *possessors*, namely possessors of a state, e.g. experiencers, or possessors of an entity. Therefore, if *Appl* ontologically resembles *Voice*, the question arises as to whether Polish datives have more in common than just their morphological, dative, marking and the same licensing head, *Appl*. In Chapter 3 and 4, we argue that this is so.

Cognitive semantics work on Polish (Dąbrowska, 1997) and other languages, e.g. Czech (Janda, 1993), suggests that there are **shared meaning components in all datives**, at least in some languages. If true, what additionally

consolidates Polish datives, apart from the same licensing head or case marking, is a universal meaning. Dąbrowska (1997) argues that all dative uses in Polish can be unified under a notion of *personal sphere*, introduced in more detail in the section to follow. If so, one could propose that the applicative head unifies all dative uses in morphological, (some) syntactic, and (some) semantic terms. We explore the idea in the remainder of this chapter as well as in the chapters to follow.

2.3.2.1. Datives united - the notion of *personal sphere/affectedness*

In Polish, a dative-marked argument is typically a **target person**, following the term of Wierzbicka (1988), namely an individual **affected** in some way by the event described by the verb. For example, in (42), the dative-marked *Tomek* denotes an entity affected by the death of his mother.

(42) **Tomkowi** umarła mama.
Tomek.DAT died mother.NOM
'Tomek's mother died (on him).'

As noted by Dąbrowska:

> participants in a situation may be affected in a variety of ways. Objects are affected when a force is applied to them and they undergo a change of state as a result. Sentient beings, on the other hand, are also affected when their loved ones die, when their prized possessions are damaged or taken away, and when embarrassing details of their private lives are exposed to the public. To define the target person category, therefore, it is necessary to introduce the notion of *personal sphere*, which comprises the persons, objects, locations, and facts sufficiently closely associated with an individual that any changes in them are likely to affect the individual as well. The target person (TP), then is *an individual who is perceived as affected by an action, process, or state taking place within or impinging upon his personal sphere* [author's own italics]. The dative case is the grammatical exponent of the target person role (Dąbrowska, 1997, 16-17)

In short, dative-marked arguments denote entities that are **affected** by what happens to them or the entities within their **personal sphere**.

The notion of affectedness is not made explicit in Dąbrowska (1997). In what follows, we take the affectedness of dative-marked arguments to denote their

potential to experience a given mental state as a result of the event to which the dative argument is related to, as in (43).

(43) **Affectedness of the dative-marked DP:**
An entity lexicalised as a dative-marked argument is said to be **affected** iff the event to which the dative argument is related can (potentially) give rise to a given mental state (positive or negative) of the entity encoded by the dative DP.

Note that we take affectedness to be a much broader term than the definition of affectedness known in formal semantics. In formal semantics, affectedness is understood as "a relationship between a theme participant that undergoes a change and a scale participant that measures the change" (Beavers, 2011, 335), as also defined in, e.g. Beavers (2008); Kennedy and Levin (2008); Krifka (1992). The understanding of affectedness, as assumed in this thesis, is different than the definition of affectedness in formal semantics literature, and therefore the two should not be taken to mean the same.

We could have chosen a term different than *affectedness*, not to confuse the reader. However, we stick to this term, because in the literature on applicatives, other authors also refer to the 'affectedness' of applied arguments. For example, Marantz (1993) refers to affected themes/patients (as in formal semantics) as well as affected arguments of other types, including benefactives, malefactives, or alienable possessors. Similarly, based on French data, Boneh and Nash (2011, 60) argue that "applicative heads establish a relation between an individual and the event, and that applicative heads are a grammatical means to introduce affectedness into the structure". Thus, independently, these authors take the notion of affectedness to be "the intrinsic interpretable feature of Appl" (Boneh and Nash, 2011, 64), just as assumed in this thesis.

Following Dąbrowska (1997), we take affectedness to be correlated with personal sphere. What the notion of personal sphere consists of is largely a matter of shared cultural assumptions; however, some elements can be said to universally belong to it, e.g. TP's body parts or clothes.

(44) a. Mama umyła **Ewie** włosy.
mother.NOM washed Ewa.DAT hair.ACC
'The mother washed Ewa's hair.'

b. Tomek poplamił **Ewie** sukienkę.
Tomek.NOM stained Ewa.DAT dress.ACC
'Tomek stained Ewa's dress.'

Similarly, the condition of people and objects that are dear to the target person are important to the TP. Therefore, family members, friends, acquaintances

and personal possessions typically belong to the TP's sphere.

(45) a. Córka **Ewie** zasnęła.
daughter.NOM Ewa.DAT fell.asleep
'Ewa's daughter fell alseep.'

b. Tomek złamał **Ewie** ołówek.
Tomek.NOM broke Ewa.DAT pencil.ACC
'Tomek broke Ewa's pencil.'

Moreover, alongside personal possessions, body parts and people, personal sphere consists of the TP's territory. Humans typically lay claim to certain spaces, e.g. their room, office, or a seat on the bus. One's space is, therefore, also typically a part of one's personal sphere (defined by given cultural norms that specify the boundaries of one's territory).

(46) a. Miły pan ustąpił **mi** miejsca w autobusie.
nice man.NOM gave.up me.DAT place in bus
'A nice man has given up his seat for me on the bus.'

b. Tomek wszedł **mi** do łazienki.
Tomek.NOM came.in me.DAT to bathroom
'Tomek came into the bathroom (on me).'

Note, however, that whether a given entity/place is included in one's personal sphere is often a matter of the speaker's assessment of the relationship between the target person and one of the participants in the event. Therefore, while family members might automatically be included in the TP's sphere, other individuals might not necessarily belong to it. The same is true of just about any potential personal sphere's entity, including objects or territories. Consider the difference between the examples in (47) and (48).

(47) a. **Córka** wyjechała Ewie do Anglii.
daughter.NOM left Ewa.DAT to England
'Ewa's daughter left her going to England.'

b. Pies sąsiada wskoczył Ewie **na biurko**.
dog.NOM of.neighbour jumped Ewa.DAT on desk
'The neighbour's dog jumped on Ewa's desk.'

(48) a. ?**Jakiś dalszy znajomy** wyjechał Ewie do Anglii.
some distant colleague left Ewa.DAT to England
'Some distant colleague of Ewa left her going to England.'

b. ??Pies sąsiada wskoczył Ewie **na drzewo w parku**.
dog of.neighbour jumped Ewa.DAT on tree in park
'The neighbour's dog jumped Ewa on a tree in the park.'

In (47), there is a strong sense of belonging to the TP's sphere - the daughter of *Ewa* is part of *Ewa*'s family, and the desk, *biurko*, is one of *Ewa*'s possessions.

Thus, the use of the dative is acceptable in (47), as whatever happens to the daughter or the table might potentially affect *Ewa*. In contrast, in (48), there is less of a sense of belonging to *Ewa*'s personal sphere. As a result, the contexts in (48) provide a lesser possibility of the entity lexicalised as a dative argument to be affected by the event. The departure of some distant colleague of *Ewa*, might not affect *Ewa* at all. Similarly, the jumping of the neighbour's dog on a tree is more of the neighbour's problem than that of *Ewa*. Therefore, the dative arguments in (48) are less acceptable, as compared to (47).

Note that in (48b), we changed the goal of the movement as compared to (47b), i.e. *na biurko* 'on the desk' vs. *na drzewo w parku* 'on a tree in the park'. The change was motivated by the need to find a context in which the goal of movement would not be part of *Ewa*'s personal sphere so that it is highly unlikely that *Ewa* would be affected by the event described in (48b). In a context in which the dog belongs to *Ewa*, i.e. *Ewa* can potentially be affected by whatever the dog does, it is acceptable to say (49).

(49) Pies wskoczył **Ewie** na drzewo w parku.
dog jumped Ewa.DAT on tree in park
'Ewa's dog jumped on a tree in a park.'

Moreover, it is also acceptable to say (50), where it is the tree that belongs to *Ewa*, not the dog.

(50) Jakiś pies wskoczył **Ewie** na drzewo w jej ogrodzie.
some dog jumped Ewa.DAT on tree in her garden
'Some dog jumped on a tree in Ewa's garden (and it affected Ewa)'.

Because the tree belongs to *Ewa*, she can potentially be affected by some dog jumping on it. Thus, in (50), it is acceptable to use the dative.

Nevertheless, while the belonging to TP's sphere is a prerequisite in the ability to use the dative, what is critical is a context in which the TP can potentially be affected. We have already illustrated the importance of affectedness with the difference between (47) and (48). The examples in (51) further illustrate the point.

(51) a. Pies polizał mi **bułkę**.
dog licked me.DAT bread.roll
'The dog licked my bread roll.'

b. ?Pies polizał mi **but**.
dog licked me.DAT shoe
'The dog licked my shoe.'

(Wierzbicka, 1988, 402, ex. a, b)

The examples in (51a) and (51b) are not equally acceptable in terms of dative use. (51a) is more acceptable because having one's bread roll licked affects one more than having one's shoe licked. A bread roll licked by a dog is for most no longer edible, while shoes licked by a dog can still be used. Therefore, even though belonging to the TP's personal sphere is a necessary condition for (potential) affectedness, it seems that it is the affectedness itself that matters more for the acceptability of dative arguments. In order to be acceptable, the dative marked argument has to denote an entity that can experience a given mental state as a reaction to the event to which the dative argument is related. Thus, in what follows we take it that it is the notion of (potential) affectedness that unifies all uses of the dative in Polish in the sense of (43).

We take it that the projection of a dative-marked argument implies that the entity denoted by this DP is affected in some way. How exactly the entity is affected depends on the predicate's meaning and the context. Nevertheless, given dative types are associated with general affectedness meaning implications, which we list in Table 2.1 and illustrate with the examples in (52).

applicative meaning and type	**affectedness implication**
recipient (low applicative)	(potentially) affected by a transfer of an entity, i.e. affected by extending or shrinking of the applied argument's personal sphere
bene(/male)factive (low applicative)	(potentially) affected by the benefit/detriment of the activity/state to which the applied argument is related
affected possessor (low applicative)	(potentially) affected by the change of state of the patient entity, which belongs to the applied argument's personal sphere
experiencer (high applicative)	affected by the state which the applied argument holds
affected agent (high applicative)	affected by the activity which the applied argument carries out

Table 2.1.: Meaning implications of various dative types

(52) a. **recipient - low applicative**

Tomek dał **Ewie** pieniądze, żeby sobie kupiła
Tomek.NOM gave Ewa.DAT money.ACC so.that self's bought
nowsze buty.
newer.ACC shoes.ACC
'Tomek gave Ewa some money so she could buy herself newer shoes.'

b. **benefactive - low applicative**

Tomek przeczytał **Ewie** bajkę na dobranoc.
Tomek.NOM read Ewa.DAT fable.ACC for good.night
'Tomek read Ewa a good night fable.'

c. **affected possessor - low applicative**

Tomek zarysował **Ewie** jej nowy samochód.
Tomek.NOM scratched Ewa.DAT her.GEN new.ACC car.ACC
'Tomek scratched Ewa's new car.'

d. **experiencer - high applicative**

Ewie żal Tomka.
Ewa.DAT sorry Tomek.GEN
'Ewa feels sorry for Tomek.'

e. **affected agent - high applicative**

Ewie dobrze czytało się tę książkę.
Ewa.DAT well read REFL this.ACC book.ACC
'Ewa enjoyed reading this book.'

The events in the examples in (52) raise a mental state of the entity encoded as the dative DP. For example, in (52a), *Ewa* might become happy, annoyed, or perhaps embarrassed on receiving the money from *Tomek*. In (52b), *Ewa* might feel happy because *Tomek*, presumably her dad, read a fable for her. In (52c), *Ewa* became most probably annoyed by the fact that her new car has been scratched. In (52d), *Tomek* is psychologically affected by the state in which *Ewa* is or by what she did. In (52e), *Tomek* is positively affected by the activity of reading a book.

Dative-marked arguments denote entities that undergo a positive, negative, or neutral mental reaction to the event to which they are related. Presumably, this is the reason as to why dative-marked arguments denote animate entities, i.e. entities that can experience a mental state. Dative-marked arguments are highly unlikely to be construed as inanimate entities, as illustrated with (53).

(53) a. *Tomek dał **swetrowi** nową dziurę.
Tomek.NOM gave jumper.DAT new.ACC hole.ACC
Intended: 'Tomek gave the jumper a new hole.'

b. *Tomek złamał **stołow**i nogę.
Tomek.NOM broke table.DAT leg.ACC
Intended: 'Tomek broke the table's leg.'

c. ??Tomek kupił **kwiatkom** nawóz.
Tomek.NOM flowers.DAT new.ACC fertiliser.ACC
Intended: 'Tomek bought a fertiliser for the flowers.'

d. ***Swetrowi** dobrze się wisiało na wieszaku.
jumper.DAT well REFL hanged on hanger.LOC.
Intended: 'It was good for the jumper to hang on the hanger.'

None of the sentences in (53) allows an inanimate dative DP, although one of our informants considered (53c) slightly better than the other examples. In (53c), it is possible to see how the new fertiliser could positively benefit the flowers. Nevertheless, the sentence is still highly degraded. The indirect object in (53c) lacks the [+mental]-feature, and therefore the object cannot encode the notion of affectedness. In order to encode the intended meaning of the sentences in (53), the dative-marked DP has to be replaced by an oblique argument, as in (54).

(54) a. Tomek zrobił nową dziurę **w swetrze**.
Tomek.NOM made new.ACC hole.ACC in jumper.LOC
'Tomek made a new hole in the jumper.'

b. Tomek złamał nogę **u stołu**.
Tomek.NOM broke leg.ACC at table.GEN
'Tomek broke the table's leg.'

c. Tomek kupił nawóz **dla kwiatów**.
Tomek.NOM bought fertiliser.ACC for flowers.GEN
'Tomek bought a fertiliser for the flowers.'

d. Powieszene na wieszaku było dobre **dla swetra**.
hanging.NOM on hanger.LOC was good for jumper.GEN
'Hanging it on the hanger was good for the jumper.

Inanimate entities are highly unlikely to be lexicalised as dative-marked DPs. Only entities that are marked with the [+mental]-feature can be encoded as dative DPs. This limitation is due to the general meaning of datives, i.e. (mental) affectedness.

Note also that, as argued in Dąbrowska (1997), the notion of personal sphere (or affectedness as assumed in this thesis) is what unifies both **free datives** and **subcategorised datives**. In Dąbrowska's words, free datives are: "dative NPs attached to 'complete' utterances in order to specify the person indirectly affected by the process designed by the verb" (Dąbrowska, 1997, 24). Thus, free datives denote extra participants that are not part of the argument structure of the verb. In contrast, some dative uses in Polish are classified as *lexically*

governed datives, in Dąbrowska's terms, or *subcategorised datives* as we will call them. Such dative arguments are selected by the verb, and they "occur with verbs which designate configurations in which the schematic specification of the target person is a salient substructure - in other words, verbs which cannot be defined without making reference to the TP" (Dąbrowska, 1997, 25).

We discuss the differences between these two types of datives in more detail in Section 2.3.3 below as well as in Chapter 3. Nevertheless, whether selected by the verb or not, both types of dative arguments are taken here to share the meaning of affectedness, as in (43). In the remainder of the thesis, we assume that affectedness is the unifying feature of all the dative uses we address. However, we will not explicitly come back to the notion of affectedness for each case we discuss.

2.3.3. Are applicatives free arguments?

In the previous section, we proposed, after Dąbrowska (1997), that all dative uses in Polish, whether free or subcategorised for, can be unified under one common meaning, affectedness. If so, we take this to support the proposal that the applicative head licenses both free and subcategorised datives. However, because many take applicatives to be free arguments, the question arises as to whether subcategorised datives are applicatives. Consider some examples of what applicative arguments are taken to be:

> Verbal arguments can be divided into two different types: those that are true arguments of the verb and those that are "additional" in the sense that there is evidence that they do not belong to the basic argument structure of the verb. [...] This thesis aims to [...] [focus] on the question of how arguments that are not, in a sense, "core" arguments of the verb get introduced into argument structures. (Pylkkänen, 2002, 2, 9)

> Dative arguments are not direct arguments of the verb; they are like subjects licensed syntactically and semantically by a specialized head [the Applicative] [...]. Dative arguments do not seem to be required or licensed by the verb; rather they are added as "extra" or "non-core" participants in the events described by the verb. (Cuervo, 2003, 3, 14)

> The applicative is usually understood as a construction in which a verb bears a specific morpheme which licenses an oblique, or non-core, argument that would not otherwise be considered a part of the

> verb's argument structure. [...] Standard applicative constructions are those in which an affix is attached to the verb, allowing an extra nominal to appear in the VP in addition to those inherently selected by the verb. (Jeong, 2007, 2-3)

> Applicative arguments are nominal elements of a sentence that are not selected by the lexical verb or a preposition of that sentence. [...] The nominal constituents I am concerned with have been called *free*, *non-core* or *applicative* because of the fact that they can be added seemingly freely to a sentence. (Bosse, 2015, 13)

In the excerpts above, an applicative argument is typically taken to be: an *extra* argument, a *non-core* argument, an argument *not belonging to the basic argument structure of the verb*, *not licensed by the verb*, or *added freely to a sentence*. These descriptions fit our definition of free datives, as introduced in the previous section; they, however, do not include our definition of subcategorised datives, taken to be core participants of the event and thus part of the verb's valency. Hence a question arises - can subcategorised datives be analysed as applicatives?

Note that, e.g. Cuervo (2003); Jeong (2007); Pylkkänen (2002, 2008) take the **optionality of a given argument** to be indicative of its non-core status. The assumption is that if one can drop the argument without causing ungrammaticality, that argument is non-core. However, as we already indicated in the previous section, a given argument's optionality does not necessarily have to be indicative of its free status as an argument. In fact, many of the examples of applicatives in the literature, typically taken to be of the low applicative type, involve three-place predicates, i.e. verbs that subcategorise for three arguments.

(55) a. I gave **Mary** a book. (English)

(Pylkkänen, 2002, 20, ex. 18a)

b. Pablo le mandó un diccionario **a Gabi**. (Spanish)
Pablo CL.DAT sent a dictionary Gabi.DAT
'Pablo sent Gabi a dictionary.'

(Cuervo, 2003, 35, ex. 1)

c. Jan wysłał **Piotrowi** książkę. (Polish)
Jan.NOM sent Piotr.DAT book.ACC
'Jan sent Piotr a book.'

(Citko, 2011, 156, ex. 139)

Even if the indirect object in the examples in (55) can be omitted, the meaning of the verb still implies that three participants are involved in the event. The

act of giving or sending requires a recipient. Therefore, the indirect object in (55) is not a free argument, rather a subcategorised one.

Similar observations have independently been made in, e.g. Bosse (2015) who closely follows Hole (2008, 2012, 2014). Assuming that applicatives are free arguments, Hole argues against using a simple optionality test to determine whether a given argument is applicative in nature. Instead, in order to distinguish between free and subcategorised datives in German, Hole proposes the criterion for free datives, in (56).

(56) **Syntactico-semantic deletion test for free datives**
A dative argument D not dependent on a preposition is *free* in a simple positive declarative sentence S of German **iff**
(i) S without D is grammatical;
(ii) S without D does not entail that there is an individual
(α) which participates in the event described by S and
(β) which could be encoded as a dative argument.
(Hole, 2012, 216, author's own emphasis)

What this means can be illustrated with the following examples:

(57) a. Paul zeigt **Touristen** die Stadt. (German)
Paul shows tourists.DAT the town
'Paul shows the town to tourists.'

b. Paul zeigt die Stadt. (German)
Paul shows the town
'Paul shows the town.'

c. (57b) **entails** 'There is someone who is shown the town.'
(Hole, 2012, 215, ex. 4)

(58) a. Paul kocht **Maria** eine Bouillon. (German)
Paul cooks Maria.DAT a broth
'Paul cooks a broth for Maria.'

b. Paul kocht eine Bouillon. (German)
Paul cooks a broth
'Paul cooks a broth.'

c. (58b) does **not entail** 'There is someone for whom a broth is cooked.'
(Hole, 2012, 215, ex. 5)

In (57a), the dative is subcategorised for by the verb *zeigen* 'to show'. Should the dative be dropped, as in (57b), the meaning changes slightly, but, essentially, the fact that there exists a person to whom *die Stadt* 'the town' is shown remains unchanged. In contrast, in (58b) dropping of the dative argument corresponds to

a complete nullification of the involvement of the entity denoted by the dative-marked DP in (58a). Therefore, (58b) does not entail that there is someone for whom the broth is cooked.

One can make the same observations about Polish datives. Consider the difference between (59) and (60).

(59) **subcategorised dative**

a. Tomek pokazał **Ewie** swój nowy samochód.
Tomek.NOM showed Ewa.DAT self's new car.ACC
'Tomek showed Ewa his new car.'

b. Tomek pokazał swój nowy samochód.
Tomek.NOM showed self's new car.ACC
'Tomek showed his new car.'

c. (59b) **entails** 'There is someone who was shown Tomek's new car.'

(60) **free dative**

a. Tomek kupił **Ewie** kwiaty.
Tomek.NOM bought Ewa.DAT flowers.ACC
'Tomek bought Ewa flowers.'

b. Tomek kupił kwiaty.
Tomek.NOM bought flowers.ACC
'Tomek bought flowers.'

c. (60b) **does not entail** 'There is someone for whom flowers were bought.'

Selected datives are implied when phonologically not realised, as in (59). Free datives are not implied when not realised, as in (60).

In this thesis, we hypothesise, building on Dąbrowska (1997), that the applicative head can potentially license both free and subcategorised datives. However, in the light of the definitions of applied arguments as non-core arguments (as those at the beginning of this section), this statement seems controversial. Nevertheless, it should be noted that the **notion of a non-core argument varies** in the literature. For some (Bosse, 2015; Citko, 2011; Cuervo, 2003; Hole, 2008, 2012, 2014; Jeong, 2007; Pylkkänen, 2002, 2008, a.o.), a non-core argument is a non-selected, extra, **free argument**. For others (Donohue, 2003; Kiyosawa and Gerdts, 2010; Pacchiarotti, 2017; Payne, 1997, a.o.), a non-core argument is an oblique argument, typically a PP. Crucially, for those that take non-core arguments to be **oblique arguments**, applicatives are arguments that are core.

In languages that show overt markers of applicative morphology, e.g. Bantu, Uto-Aztecan, Austronesian, applied arguments are analysed as core arguments.

In fact, for some (Alsina and Mchombo, 1993; Payne, 1997; Peterson, 1999, e.g.) the most prototypical cases of applicative constructions are contexts where the valency-increasing potential of the applicative marker **promotes an oblique object to core status**:

> In most cases, an applicative can be insightfully described as a valence increasing operation that brings a peripheral participant onto center stage by making it into a direct object. [...] For verbs that already have one direct object, the applicative either results in a three-argument (ditransitive) verb, or the "original" direct object ceases to be expressed. (Payne, 1997, 186-87)

> The effect of the applicative is to introduce a new internal argument into the argument structure of a verb. It thus allows a role that would be expressed as an oblique, if at all, to be expressed as a direct argument. (Alsina and Mchombo, 1993, 27)

> In terms of their morphosyntax, applicative constructions are constructions, or sentential structures, which involve a participant that normally would not be instantiated in a core object relation, but rather as an oblique of one or another sort, in a core (usually direct object) instantiation. (Peterson, 2007, 39)

Thus, if in its most prototypical form, an applicative construction introduces the applied nominal as a core argument in a direct object function, that applied nominal is far from being a free argument. Therefore, assuming an understanding of an applied object as an exclusively free argument would not include the most prototypical instantiation of the applicative construction, i.e. the applicative alternation.

The examples in (61) illustrate the applicative alternation in Halkomelem, a Salish language spoken in Canada.

(61) a. ni? qʷəl-ət-əs łə-nə ten kʷΘə
AUX cook-RDR-RTR-3SG.SBJ DET-1SG.POSS mother DET
səplil
bread (Halkomelem)
'My mother baked the bread.'

b. ni? qʷəl-ə**łc**-t-əs łə-nə ten **łə**
AUX cook-RDR-RTR-3SG.SBJ DET-1SG.POSS mother DET
słeni? ʔə kʷΘə səplil (Halkomelem)
woman OBL DET bread
'My mother baked the bread for the woman.'

(Kiyosawa and Gerdts, 2010, 117, ex.1-2)

In (61a), the theme 'bread' is expressed as a direct object. In the applicative construction in (61b), the transitive verb 'to cook' takes the redirective applicative suffix *-əɬc*. The beneficiary 'woman' takes the direct object role and the theme 'bread' is expressed as an oblique argument - in a prepositional phrase. The nominal introduced by the applicative suffix constitutes a core argument, a direct object, while the direct object of the non-applicative variant in (61a) is demoted.

Similar examples of **object promotion** can be found in Shona, a Bantu language spoken in Zimbabwe (Cann and Mabugu, 2007).

(62) a. mai va-ka-tum-a mw-ana **(kuna**
CL1a.mother s3:2-PST-sent-FV CL1-child to
mbuya) (Shona)
CL1a.grandmother
'Mother sent the child (towards grandmother).'

b. mai va-ka-tum-**ir**-a mw-ana
CL.1a.mother s3:2-PST-sent-APPL-FV CL1-child
mbuya (Shona)
CL1a.grandmother
'Mother sent the child to grandmother.'

(Cann and Mabugu, 2007, in Pacchiarotti 2017, 44, ex.11-12)

In (62a), the verb root *tum* 'to send' occurs without an applicative marker, and the goal 'towards grandmother' is lexicalised as an optional oblique argument. In (62b), the same root takes the applicative suffix *-ir* and the goal 'towards grandmother' is promoted to a DP, which acquires all object properties.

Similarly, Tukang Besi, an Austronesian language spoken in Indonesia, can promote an oblique object to a core DP (Donohue, 2003), as in (63).

(63) a. Na-aso te bae **kua tolida=no**. (Tukang Besi)
3R.S/A-sell CORE rice ALL cousin=3GEN
'She sold the rice to his cousin.'

b. Na-aso-**api** te **tolida=no** te bae. (Tukang Besi)
3R.S/A-sell-DIR CORE cousin=3GEN CORE rice
'She sold the rice to his cousin.'

(Donohue, 2003, 113, ex. 3-4)

(63) illustrates an alternation between a transitive clause with a goal marked by the oblique *kua*, as in (63a), and the applicative alternative, in (63b). The applicative variant has its verb suffixed with the directional applicative *-api*. The applicative morpheme is one that identifies a verbal predicate as having a core argument.

Therefore, if the most typical way to license an applied argument is to promote an oblique argument to a core status, then there is no reason not to include the Polish subcategorised datives under the definition of applied arguments. Not only are subcategorised datives in Polish non-oblique, but most, in fact, alternate with oblique arguments. Consider some examples of what looks like a sort of an applicative alternation in Polish - with free datives in (64)-(65), and subcategorised datives in (66)-(67):

(64) **applicative alternation with a free benefactive**

a. Tomek ugotował **dzieciom** zupę pomidorową.
Tomek cooked children.DAT soup tomato
'Tomek cooked tomato soup for children.'

b. Tomek ugotował **dla dzieci** zupę pomidorową.
Tomek cooked for children.ACC soup tomato
'Tomek cooked tomato soup for his children.'

(65) **applicative alternation with a free benefactive/substitutive**

a. Tomek odrobił **córce** jej lekcje.
Tomek did daughter.DAT her subject
'Tomek did the homework for his daughter.'

b. Tomek odrobił **za córkę** jej lekcje.
Tomek did instead.of daughter.ACC her subject
'Tomek did the homework for/instead of his daughter.'

(66) **applicative alternation with a subcategorised recipient**

a. Tomek wysłał **dzieciom** list.
Tomek sent children.DAT letter
'Tomek sent a letter to his children.'

b. Tomek wysłał **do dzieci** list.
Tomek sent to children.GEN letter
'Tomek sent a letter to his children.'

(67) **applicative alternation with a subcategorised recipient**

a. Tomek przyprowadził **babci** wnuki.
Tomek brought grandmother.DAT grandchildren
'Tomek brought the grandmother her grandchildren.'

b. Tomek przyprowadził wnuki **do babci**.
Tomek brought grandchildren to grandmother.GEN
'Tomek brought the grandchildren to their grandmother.'

As illustrated in the examples above, both free and subcategorised datives can alternate with oblique arguments in Polish. A benefactive can be replaced by a PP headed by *dla* 'for', complemented by an accusative-marked nominal.

Substitutive/benefactive alternates with a PP headed by *za* 'instead of', complemented with a genitive-marked nominal. Recipients can be replaced with a PP headed by *do* 'to', complemented with a genitive-marked argument. If, therefore, the main function of an applicative alternation is an advancement of an oblique argument to a core status, it seems that both free and subcategorised datives can be analysed as applied arguments. This is especially true in light of the typical theta roles that applied arguments in languages with prototypical applicative constructions take, i.e. benefactives/malefactives, recipients, instruments, and other peripheral semantic roles.

Note, however, that there is a crucial difference in Polish and, e.g. Bantu concerning the alternation between the applicative and an oblique argument. Namely, in contrast to Polish, in languages with prototypical applicatives, the direct object is often, although not always, as in e.g. (62a), demoted once the applicative argument is licensed as a direct object. In the section to follow, we hypothesise that cross-linguistically, applicative arguments can be divided into *vP*-internal and *ApplP*-internal ones. We take it that *vP*-internal applicatives show features characteristic of direct objects while *ApplP*-internal applicatives differ from internal arguments. In the chapters to follow, we argue that Polish applicatives are *ApplP*-internal. Polish applicatives differ from direct objects and are not merged where direct objects are. Therefore, in Polish, there is no need to demote the direct object when an applicative argument is added to the structure.

Moreover, not all Polish datives can alternate with oblique PP arguments. This is especially true of *give*-type ditransitive verbs. Consider, e.g. (68).

(68) a. Tomek dał **Ewie** samochód.
Tomek gave Ewa.DAT car.ACC
'Tomek gave Ewa a car.'

b. *Tomek dał **do/dla Ewy** samochód.
Tomek gave to/for Ewa.GEN car.ACC
Intended: 'Tomek gave a car to/for Ewa.'

In the chapter to follow, we discuss the lack of such PP-alternation in *give*-type ditransitives in more detail. However, at this point, we would like to indicate that such lack of the applicative alternation is not uncommon. Even in languages with prototypical applicative constructions, one can find many examples of applied arguments that do not alternate with obliques.

In general, applicative contexts in languages that show typical **applicatives can be divided into optional and obligatory ones** (Creissels, 2010, 2016; Pacchiarotti, 2017; Peterson, 2007, a.o.), although some, e.g. Peterson (2007, 50), question whether obligatory applicatives are true applicatives.

> In applicative constructions, a participant that cannot be treated as a core term of the corresponding non-applicative construction shows morphosyntactic properties identical or similar to those of the patient in the prototypical transitive construction. Applicative constructions may thus promote participants otherwise encoded as adjuncts to the status of core syntactic terms, but there are also obligatory applicatives (particularly common among Bantu languages), i.e. applicative constructions that constitute the only possible way to encode some semantic roles. (Creissels, 2010, 30)

Thus, optional applicative constructions are non-compulsory in the sense that the variant with an applied argument is not the only way of expressing a given semantic role. The applicative alternation examples in Halkomelem, Shona, Tukang Besi in (61)-(63) illustrate optional applicatives. However, some languages that show overt applicative verbal suffixes do not have applicative alternations, rather they show obligatory applicative constructions; these are obligatory in the sense that the variant with an applied object is the only possible way to realise a given semantic role (Creissels, 2010, 2016; Pacchiarotti, 2017). Thus, the promotion of an oblique object to a core, direct object role under applicative construction is not the only defining property of applicatives.

Tswana, a Bantu language of Botswana, provides an example of an obligatory applicative (Pacchiarotti, 2017).

(69) a. L ‘ʊrátɔ́ ʊ́-tlá ‘a-kwál-**ɛ́l**-á **Kítsɔ́** l ‘ʊ-kwâ:l ‘ɔ
CL1.Lorato s3:1-FUT-write-APPL-FV CL1.Kitso CL11-letter
(Tswana)

‘Lorato will write Kisto a letter.’

b. *L ‘ʊrátɔ́ ʊ́-tlá ‘a-kwál-á l ‘ʊ-kwâ:l ‘ɔ **PREP Kítsɔ́**
CL1.Lorato s3:1-FUT-write-FV CL11-letter PREP CL1.Kitso
(Tswana)

Intended: ‘Lorato will write a letter to Kitso.’

(Pacchiarotti, 2017, 46-7, ex. 14-15)

The root ‘to write’ takes two arguments ‘Lorato’ and ‘letter’. The applicative suffix *-ɛ́l-*, in (69a), increases the valency of the root by one - the recipient ‘Kitso’. This added argument displays object properties, e.g. it can be indexed on the verb or it can be made the subject of a passive. There is no alternative construction in Tswana in which the root could combine with an oblique argument - thus, Tswana shows no applicative alternation, typical of languages that

have optional applicatives. Similar examples can be found in Tzotzil, a Mayan language spoken in Guatemala (Peterson, 1999).

(70) a. mi mu š-a-čon-b-on l-a-čitome (Tzotzil)
? NEG ASP-E2-sell-APP-A1 the-your-pig
'Won't you sell me your pigs?'

b. *mi mu š-a-čon-Ø ʔa-čitom ta voʔone (Tzotzil)
? NEG ASP-E2-sell-A3 your-pig to I(287)
Intended: 'Won't you sell your pigs to me?'

(Peterson, 1999, 42, ex. 9a-b)

In (70) we can see that in Tzotzil, it is not possible to express a recipient argument without using the applicative construction. Therefore, while (70a) is acceptable, a conceivable non-applicative variant of the same construction, in (70b) is not grammatical.

Therefore, the fact that applicatives typically promote a former oblique argument to core object status in languages with optional applicative constructions should not be taken to be a decisive defining feature of prototypical applicatives. Definitions that take applicative constructions to promote oblique arguments to core ones exclude languages where applicative constructions are obligatory, in the sense that they provide the only way to express a semantically peripheral argument such as, e.g. beneficiary, recipient, goal, etc. (Pacchiarotti, 2017, 46). In turn: a) if obligatory applicatives are true applicatives, and b) if languages like, e.g. Polish, which do not show overt verbal applicative suffixes can be taken to have applicative arguments of sorts, then c) the definition of such non-prototypical applied arguments should not be limited to free arguments only. Rather, the definition should also include arguments that are subcategorised for. In Chapter 3 we discuss the difference between free low applicatives and subcategorised low applicatives in Polish, arguing that free applicatives are 'born' as applicatives, i.e. merged directly in [*Spec;ApplP*]. In contrast, subcategorised applicatives are first-merged within the $\sqrt{P}$ projection and become applied arguments on movement to [*Spec;ApplP*].[9]

2.3.4. Do all languages project *Appl*?

The most significant difference between languages with prototypical applicatives and languages with atypical applicatives is the presence of the **verbal applicative marker** in the former and the lack of it in the latter. As illustrated in the previous section, Bantu, Uto-Aztecan and Austronesian, among

[9] The distinction between applicatives that are *made* and those that are *born* is inspired by Cuervo (2010), i.e. the paper entitled "Some dative subjects are born, some are made".

other languages, mark their applicatives with a verbal applicative suffix. This is not the case for the atypical applicatives of, e.g. Slavic, Romance or Germanic. This lack of the applicative verbal marker is often taken to demonstrate the lack of applicative structures in these languages. As indicated, e.g. by Polinsky (2013) "[i]t is customary to restrict the designation *applicative* to those cases where the addition of an object is overtly marked on the predicate. Thus English pairs such as *She baked a cake - She baked Oscar a cake* do not count as basic-applicative alternation".

Recall, however, from Section 2.2 that following Marantz (1993), Pylkkänen (2002) proposes that certain languages that lack applicative verbal suffixes, e.g. English, Albanian do have applicative arguments. In fact, the very example which Polinsky uses to indicate that English does not have applicative constructions, i.e. *She baked Oscar a cake*, is the example Pylkkänen uses to illustrate an English-type applicative cross-linguistically. Recall (13), repeated for convenience in (71) below.

(71) **English-type low applicative object**

a. I baked a cake.

b. I baked **him** a cake.

(Pylkkänen, 2002, 17, ex.11a-b)

Although not the first one to propose that there are some correspondences between prototypical applicatives and English double object constructions - earlier accounts can be found in, e.g. Baker (1988a,b); Marantz (1993) - once Pylkkänen published her thesis, the theory of applicatives spread and has been growing strong since.

Nevertheless, in WALS, the World Atlas of the Language Structures Online (Dryer and Haspelmath, 2013), neither English nor Spanish, German, Polish or other languages spoken in Europe and mentioned earlier in this chapter as showing applicatives are taken to license applied objects. Consider Figure (2.1) showing the distribution of applicative constructions worldwide, based on a sample of 183 languages. In Figure (2.1), black symbols, squares and circles, indicate an applicative construction of sorts. White circles mark a lack of an applicative construction in a given language. We can see that applicative constructions are most common in three geographical areas: Africa (predominantly in Bantu languages), the western Pacific region (Austronesian languages), and North and Meso-America (mostly Salish, Mayan and Uto-Aztecan languages).

Figure (2.2) shows the same WALS map with a focus on the Europe area. We can see that the white circles, marking a lack of applicative constructions, indicate that: Icelandic, Gaelic (Scots), English, Spanish, Basque, French, German,

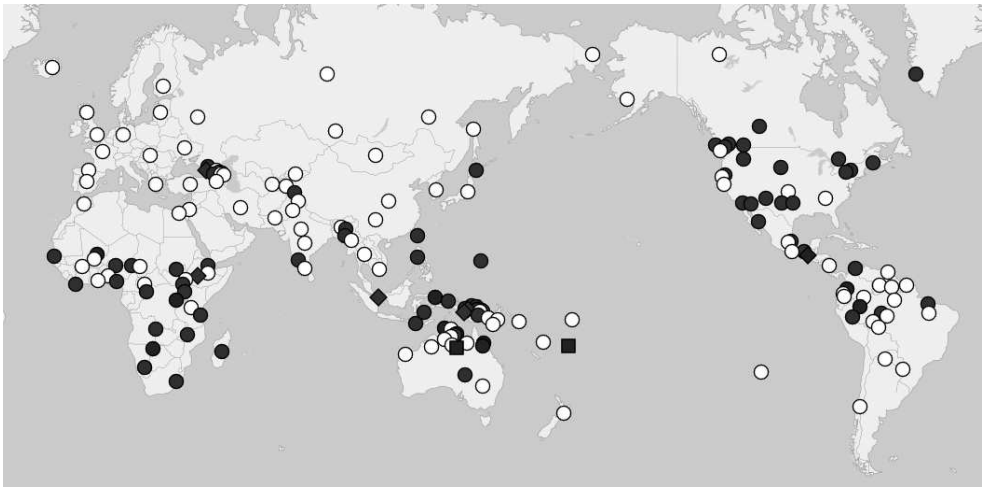


Figure 2.1.: Applicative constructions - world (WALS), Dryer and Haspelmath (2013)

Figure 2.2.: Applicative constructions - Europe (WALS), Dryer and Haspelmath (2013)

Hungarian, Greek, Finnish, Latvian, Ukrainian and Russian lack applicatives. Only three languages of Eurasia - Abaza, Abkhaz and Georgian - are taken

to have applicatives.[10] Yet, almost for each language marked on the WALS map as lacking applicative constructions, there has been an applicative analysis proposed - Icelandic (Wood, 2012, 2014, a.o.), English (Bruening, 2010a,b; Marantz, 1993; Pylkkänen, 2002, 2008, a.o.), Spanish (Cuervo, 2003, 2010, 2014, 2015; Pineda, 2012, 2013a,b, a.o.), Basque (Pineda, 2014, a.o.), Bulgarian (Iovtcheva, 2018), French (Boneh and Nash, 2008, a.o.), German (Bosse, 2015; Georgala, 2012; Hole, 2008, a.o), Greek (Anagnostopoulou, 2003, 2005; Georgala, 2012, a.o.), Finnish (Pylkkänen, 2002, 2008, a.o.), Russian (Germain, 2017; Grashchenkov and Markman, 2008; Markman, 2007; Savchenko, 2014; Tsedryk, 2018, a.o.). Additionally, other languages, not included on the map, have also been analysed as showing applied arguments - for example: Polish (Citko, 2011; Krzek, 2012; Malicka-Kleparska, 2012, a.o.), Lithuanian (Germain, 2017, a.o.), Catalan (Pineda, 2013a,b, a.o.).

Therefore, a question arises. Could prototypical and atypical applicatives be somehow unified in theoretical terms? A synthesis of the two applicative types exceeds the scope of this dissertation, and therefore we remain agnostic as to a detailed analysis. Note, however, that, as indicated in the previous section, applied objects licensed by an applicative verbal suffix are typically core direct objects, i.e. internal arguments. Also, as noted in Polinsky (2013), with regard to the geographical distribution of applicative constructions (of the prototypical kind):

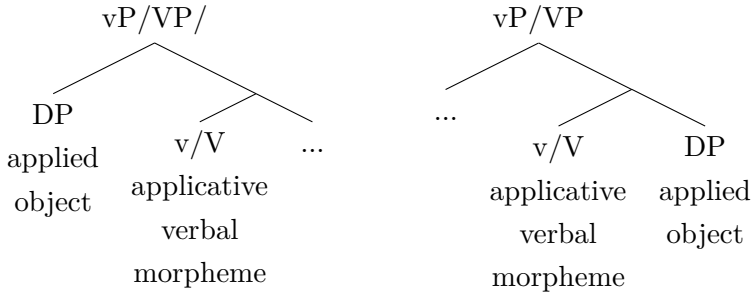
> [t]he main generalization seems to be that applicatives are commonly found in those languages that have little or no case-marking of noun phrases in a clause and that have sufficiently rich verbal morphology to mark applicative formation on the predicate. The dearth of applicatives in Eurasia may thus be due to the widespread presence of rich nominal morphology in the languages of that area, and indeed, where applicatives are found is in languages like Abkhaz and Abaza (Northwest Caucasian; Georgia and Russia), which have little or no overt case marking of noun phrases.

It is, therefore, possible that there exists a correlation between the properties of the morphological system of a given language and the type of applicative construction it can license. If so, it could be the case that in languages that have rich verbal morphology, the applicative marker is verbal in nature, while in languages that have rich nominal morphology, the applicative marker is non-verbal in nature, be it a clitic, functional argument licensing head, case licenser,

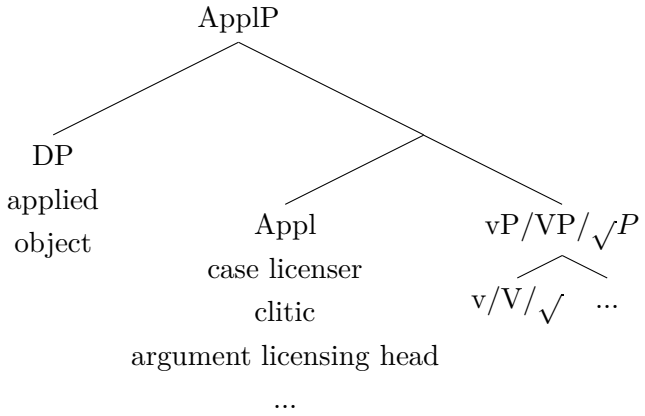
[10] For references on the presence or lack of applicatives in these languages, please consult WALS (Dryer and Haspelmath, 2013).

or similar. If so, this difference in the nature of the applicative element could translate to the following structural variance:

(72) a. **verbal-internal applicative**



b. **verb-external applicative**



Crucially, in the case of verb-internal applicatives the maximal projection of the position in which such argument is projected corresponds to *vP/VP*. In contrast, the maximal projection of non-verbal applicatives corresponds to *ApplP*.

Note that in contrast to prototypical applicatives, as we have already shown in Section 2.1 and will further discuss in Chapters 3 and 4, in Polish, a language with rich nominal morphology, the applied argument is an *external object* - it has a grammatical function of an object, but in syntactic terms, it behaves more like an external argument. This syntactic behaviour indicates that the applied argument is not an argument of the verb. If we allow applicative licensing heads to be non-verbal, i.e. *Appl*, then the fact that arguments licensed by such *Appl* are external to the verb is expected. In prototypical applicative constructions, the applied argument is a core direct object, licensed by a verbal element - typically a suffix. In languages with atypical applicative constructions, there is no applicative suffix, but the complex nominal morphology allows for applicative licensing outside of the verbal complex.[11]

[11]Obviously, if both types of applicatives do exist, then we might as well call them *verb-*

If true,the question arises as to how one should analyse languages in which both verbal and nominal morphology is relatively limited, e.g. English, Mainland Scandinavian, Mandarin. Supposing our hypothesis is right, the nature of the applied object could be indicative of how it is licensed. If the applied object behaves syntactically more like an internal argument, e.g. it can passivise, it is probably licensed by a verbal element. If it behaves more like an external argument, e.g. it cannot passivise, it is probably licensed by a functional head other than v/V. We will leave a more thorough investigation of this speculation for future research, although we come back to the problem of passivisation of applicative objects in Chapter 5. We show there that Icelandic indirect objects can passivise and thus seem to be vP-internal applicatives. In contrast, Polish indirect objects cannot passivise, indicating they are vP-external.

At this point, in the spirit of unifying all dative uses, free datives with subcategorised ones, and Polish with other languages for which an applicative analysis has been proposed, we hypothesise that it is possible to find a common core of applicatives in languages like Bantu, Mayan, Salish, and languages like Romance, Slavic, or Germanic. Crucially for the discussion in the chapters to follow, we hypothesise that if applicative arguments exist in Polish, then the head that licenses them must verb-external.

2.4. Conclusions

This chapter pointed to some puzzling properties of dative arguments. For example, in Polish, nominalisation and extraction phenomena indicate that in syntactic terms, dative arguments do not behave like typical internal arguments of the verb. We also indicated that this behaviour could be explained if dative-marked arguments were analysed as licensed by a functional head other than v or V, namely the applicative head. We introduced the main ideas behind the applicative theory, especially as presented in Cuervo (2003); Pylkkänen (2002, 2008) and discussed some disputes concerning the theory.

Firstly, we showed that the verb semantics and verb transitivity applicative diagnostics proposed in Pylkkänen (2002, 2008) are not always discriminative, at least in Polish. Also, even though under Pylkkänen's analysis, the licensing of secondary depictives test is not applicable to Polish, we showed that we can successfully use it to distinguish applicatives in this language. Moreover, we proposed **additional tests** differentiating between low and high applicatives in

internal applicatives and *verb-external applicatives*, rather than typical and atypical ones. After all, how do we decide which is in fact typical - they both might be, they simply differ in nature.

Polish, namely: a) anaphor vs. pronominal binding and b) licensing of adjunctive participial clauses. Dative-marked arguments that can antecede anaphors and license adjunctive participial clauses are taken to be projected high, above the v projection. In contrast, low applicatives, projected below v, can antecede pronouns only and they cannot license participial adjunct clauses.

Secondly, following Cuervo (2003) who consolidates most dative uses in Spanish under one licensing head, that of the applicative, we asked whether dative-marked arguments could be additionally unified under other notions than the ones proposed in Cuervo, i.e. the same licensing head and the same, dative, morphology. Following Dąbrowska (1997), we proposed that all dative-marked arguments in Polish can be consolidated under a common meaning, that of **affectedness**. Consolidating all the uses of datives under the notion of affectedness (Dąbrowska, 1997), we provided yet another reason for a unified analysis of dative uses.

Thirdly, we pointed out that in the literature, some take applied arguments to be non-core in the sense of being not selected by the verb, while others take applicatives to be core arguments, in the sense of being non-oblique. We suggested that in fact both understandings could be unified if we took applied arguments to be of two types, **verb-internal** and **verb-external**. We take verb-internal applicatives to show typical object properties, e.g. the ability of the object to become a passive subject. In their prototypical form, verb-internal applicatives are licensed by an applicative verbal suffix, as in, e.g. some Bantu, Mayan, Salish, Uto-Aztecan, and other languages with overt applicative morphology. In contrast, we take verb-external applicatives to be licensed by a functional head other than v/V, namely the *Appl*. Such verb-external applicatives are predicted to lack typical object-like properties.

In what follows, we turn to case studies of Polish low and high applicatives. In the chapter to follow, we illustrate low applicatives with recipients and bene/malefactives. We focus particularly on recipients and on the dative-accusative ditransitive construction in Polish. We compare this construction to the English double object construction. We argue against a small-clause analysis of Polish dative-accusative ditransitives, i.e. against an account proposed for English ditransitives. We propose an alternative account for Polish.

Part II.

Polish applicatives: two case studies

3. Low applicatives

Languages exhibit various strategies for lexicalising events that involve three participants (Margetts and Austin, 2007). One of such strategies is a ditransitive construction, which encodes agent, theme and recipient/goal theta roles. Typologically, the ditransitive construction is the most prominent means of encoding three-participant events in European languages (Blansitt, 1973; Goldberg, 2005; Malchukov et al., 2010, a.o.). The most prototypical examples of verbs that occur in ditransitive constructions are verbs that denote a physical transfer such as, e.g. *give*, *send*, *hand*, *sell*, or *return*.

In this chapter, we focus on two ditransitive verbs, *give* and *send*. We show the similarities as well as the differences in how these verbs are lexicalised in English and Polish. Based on semantic and syntactic arguments including, a.o., *again-* modification, extraction, nominalisation, and distributive *po*-phrases, we argue that a small clause analysis of ditransitive verbs, proposed for English, does not apply to Polish. Rejecting the bi-clausal account for the Polish data, we consider a low applicative analysis as an alternative (Cuervo, 2003; Jeong, 2007; Legate, 2002; McGinnis, 2001; Pylkkänen, 2002, 2008, a.o.). We show, however, that in order to apply the low applicative account to Polish, and possibly to other languages, some adjustments are in order.

In contrast to Pylkkänen (2002, 2008), we argue that the indirect object (IO) of a ditransitive is not a co-argument of the direct object (DO). We take the IO to merge in [*Spec;ApplP*] and the DO to be the complement of the root. We decompose verbs into the root and a categorising v head, and we propose that the low applicative head with *give* and *send* in Polish merges between the root and the v_{DO} head. Moreover, following the discussion in Section 2.3.3 of Chapter 2, we put forward two types of low applicatives exist, namely low applicatives that are subcategorised for, e.g. recipients, and those that are free arguments of the verbal predicate, e.g. benefactives and malefactives. We propose a different analysis for both low applicative types.

The discussion in this chapter is organised as follows. In **Section 3.1**, we discuss the dative alternation in English and its equivalent in Polish. In **Section 3.2**, we show that the recipient theta role can be lexicalised in two ways in English, i.e. as an IO or as a prepositional phrase. In contrast, in Polish, the

recipient is realised as an IO, and the goal is only realised as a prepositional phrase. In **Section 3.3**, we show the arguments for a small clause analysis of the double object construction in English. Using the same diagnostics as for English, we show that a small clause account does not apply to Polish ditransitives of the *give*- and *send*-type. In **Section 3.3.3**, we discuss some challenges of the low applicative analysis proposed in Pylkkänen (2002, 2008). Based on the Polish data, we propose an alternative low applicative account. **Section 3.4** concludes the discussion.

3.1. Dative alternation

One of the characteristic features of the English double object construction (DOC) is the so-called dative alternation, namely the ability of the IO to alternate with a prepositional phrase headed by *to*, as illustrated in (1).

(1) a. Tom gave **Kate** a book.
    b. Tom gave a book **to Kate**.

(2) a. Tom sent **Kate** a book.
    b. Tom sent a book **to Kate**.

The English dative alternating verbs are often grouped into subclasses, based on their semantics.

(3) a. Verbs that inherently signify acts of giving (***give*-type verbs**):[1]
    give, *hand*, *lend*, *loan*, *pass*, *rent*, *sell*, ...
    b. Verbs of future having (***promise*-type**):
    allocate, *allow*, *bequeath*, *grant*, *offer*, *owe*, *promise*, ...
    c. Verbs of communication (***tell*-type**):
    tell, *show*, *ask*, *teach*, *read*, *write*, *quote*, *cite*, ...
    d. Verbs of sending (***send*-type verbs**):
    forward, *mail*, *send*, *ship*, ...
    e. Verbs of instantaneous causation of ballistic motion (***throw*-type**):
    fling, *flip*, *kick*, *lob*, *slap*, *shoot*, *throw*, *toss*, ...
    f. Verbs of causation of accompanied motion in a deictically specified direction (***bring*-type**):
    bring, *take*, ...

[1] For ease of presentation, we will refer to each group by the name of one of the most prototypical members of each group, indicated in the brackets in (3).

g. Verbs of instrument of communication (***e-mail*-type**):
e-mail, *fax*, *radio*, *wire*, *telegraph*, *telephone*, ...
(Rappaport Hovav and Levin, 2008, 134)[2]

All verbs listed in (3) alternate between the double object (DOC) frame and the prepositional (PP) frame, as illustrated in (4).

(4) a. *give*-type verbs
Tom gave **Kate** a book. / Tom gave a book **to Kate**.

b. *promise*-type
Tom promised **Kate** a book. / Tom promised a book **to Kate**.

c. *tell*-type verbs
Tom showed **Kate** a book. / Tom showed a book **to Kate**.

d. *send*-type verbs
Tom forwarded **Kate** a letter. /Tom forwarded a letter **to Kate**.

e. *throw*-type verbs
Tom kicked **Kate** a ball. /Tom kicked a ball **to Kate**.

f. *bring*-type verbs
Tom brought **Kate** a book. /Tom brought a book **to Kate**.

g. *e-mail*-type verbs
Tom e-mailed **Kate** a book. /Tom e-mailed a book **to Kate**.

Although not as productive as in English, **a dative alternation of sorts also exists in Polish** as well. In the Polish prepositional variant, the PP is headed by the preposition *do* 'to'. In the dative-accusative (DAC) variant, the IO is marked with dative, and the DO is marked with accusative case.

(5) a. Tomek wysłał **Kasi** list.
Tomek.NOM sent Kasia.DAT letter.ACC
'Tomek sent Kasia a letter.'

b. Tomek wysłał **do Kasi** list.
Tomek.NOM sent to Kasia.GEN letter.ACC
'Tomek sent a letter to Kasia.'

In contrast to English, the Polish non-prepositional variant morphologically differentiates between the theme and the recipient. Because of this dative-accusative case distinction, and as is customary in typological studies, we will

[2]The classification proposed draws to a great extent on a previous study by Pinker (1989). However, Pinker's class of verbs of creation, e.g. *build, make, sew*, is omitted in Rappaport Hovav and Levin's (2008) analysis of dative alternating verbs. As argued by Rappaport Hovav and Levin, creation verbs take benefactive arguments rather than recipients. This is shown by the fact that creation verbs alternate with the *for*-phrase rather than the *to*-phrase, typical of dative alternating verbs.

refer to the double object variant in Polish as a *dative-accusative construction* (DAC), rather than DOC.[3]

The following list provides the Polish translations of the classes of dative alternating verbs proposed for English (for a similar list for Russian see Boneh and Nash, 2017).

(6) a. ***give*-type**:
dać 'to give', *podać* 'to hand/to pass', *obdarować* 'to gift/to present with', *przekazać* 'to give/to pass on', *pożyczyć* 'to lend/loan', *użyczyć* 'to grant/to give', *wypożyczyć* 'to borrow', *wynająć* 'to rent', *sprzedać* 'to sell', ...

b. ***promise*-type**:
przydzielić 'to allocate', *pozwolić* 'to allow', *przekazać* 'to bequeath', *zapewnić* 'to grant', *oferować* 'to offer', *być dłużnym/winnym* 'to owe', *obiecać* 'to promise', ...

c. ***tell*-type**:
powiedzieć 'to tell', *pokazać* 'to show', *pytać* 'to ask', *uczyć* 'to teach', *czytać* 'to read', *pisać* 'to write', *cytować* 'to cite/quote', ...

d. ***send*-type**:
wysłać 'to send', *podesłać*, 'to send over', *rozesłać/przesłać* 'to circulate', ...

e. ***throw*-type**:
rzucić 'to throw', *wrzucić* 'to throw in', *zarzucić*, to throw over /fling', *zrzucić* 'to throw off', *podrzucić* 'to toss', *przerzucić* 'to lob/flip', *kopać/kopnąć* 'to kick', ...

f. ***bring*-type**:
przynieść 'to bring', *wziąć* 'to take', ...

[3]Note, however, that the *dative-accusative* name reflects the most prototypical realisation of the frame. This is, nevertheless, not to say that all ditransitive verbs in Polish govern dative and accusative cases. Although other case markings are unproductive, there are also examples where the IO is marked with accusative and the DO with genitive case, as in (ia). Also, some predicates require accusative IOs and genitive DOs, as in (ib).

(i) a. Kasia uczy Maćka matematyki.
Kasia.NOM teaches Maciek.ACC mathematics.GEN
'Kasia teaches Maciek maths.'

b. Kasia udzieliła Maćkowi pomocy.
Kasia.NOM granted Maciek.DAT help.GEN
'Kasia provided Maciek with help.'

Note that neither (ia) nor (ib) show the dative alternation.

g. ***e-mail*-type**:
wysłać e-mail 'to e-mail' *przefaksować* 'to fax', *zadzwonić* 'to telephone', ...

The prepositional variant in Polish is more restricted than in English. As illustrated in (7), Polish *give*-, *promise*- and *tell*-type verbs do not allow the dative alternation. In contrast, *send*-, *throw*- and *bring*-type verbs alternate between the DAC and the PP variants. The same is true for all the verbs of the respective groups.[4] Consider selected examples of each of the group.

(7) a. *give*-type

Tomek dał **Kasi** książkę. /*Tomek dał książkę **do Kasi**.
Tomek gave Kasia book Tomek gave book to Kasia

b. *promise*-type

Tomek obiecał **Kasi** książkę. /*Tomek obiecał książkę **do Kasi**.
Tomek promised Kasia book Tomek promised book to Kasia

c. *tell*-type

Tomek pokazał **Kasi** książkę. /*Tomek pokazał książkę **do Kasi**.
Tomek showed Kasia book Tomek showed book to Kasia

d. *send*-type

Tomek wysłał **Kasi** książkę. /Tomek wysłał książkę **do Kasi**.
Tomek sent Kasia book Tomek sent book to Kasia

e. *throw*-type

Tomek rzucił **Kasi** książkę. /Tomek rzucił książkę **do Kasi**.
Tomek threw Kasia book Tomek threw book to Kasia

f. *bring*-type

[4]Exceptions do exist; e.g in certain contexts *powiedzieć* 'to tell' and *pisać* 'to write' allow the prepositional variant, as in (i).

(i) a. Tomek napisał **do Ewy** list.
Tomek.NOM wrote to Ewa.GEN letter.ACC
'Tomek wrote a letter to Ewa.'

b. Tomek powiedział to **do Ewy**.
Tomek.NOM said that.ACC to Ewa.GEN
'Tomek said that towards Ewa.'

Note, however, that the examples in (i) involve the meaning of motion, as in 'Tomek sent a letter to Ewa' and 'Tomek said that in the direction of/towards Ewa', respectively. As we show in the section to follow, the alternation is allowed under the meaning of motion. In non-motion contexts, the same predicates do not allow the PP variant.

Tomek przyniósł **Kasi** książkę. /Tomek przyniósł książkę **do** **Kasi**.
Tomek brought Kasia book Tomek brought book to Kasia

In the section to follow, we show that the analysis of the English dative alternation proposed in Rappaport Hovav and Levin (2008) makes correct predictions as to the restricted productivity of the alternation in Polish, as compared to English.

3.2. Semantic considerations

Semantically, there are two major analyses of the dative alternation in English. Some argue that the two frames of dative alternating verbs are associated with the **same meaning** (Baker, 1988b; Bresnan, 1982; den Dikken, 1995; Larson, 1988; Ura, 2000; Wechsler, 1995, a.o.). Others claim that the two alternants have two related, but **different meanings** (Beck and Johnson, 2004; Goldberg, 1992, 1995; Hale and Keyser, 2002; Harley, 2003; Krifka, 1999, 2004; Pinker, 1989; Rappaport Hovav and Levin, 2008, a.o.). In Polish, the DAC variant encodes a recipient while the PP variant encodes a goal. This semantic difference can only be explained by the latter approach, which we attend to in the discussion to follow. In particular, we focus on the scrutiny of Rappaport Hovav and Levin (2008); in what follows, we briefly summarise their proposal for English and discuss its predictions concerning the Polish data.

3.2.1. English - two ways of lexicalising recipients

Most accounts of the multiple meaning approach assume that the PP variant in English expresses a **caused motion**. This meaning denotes an agent that causes a theme to move along a path towards a goal. On the other hand, the DOC variant is taken to express a **caused possession**, namely an agent causing a recipient to possess a theme. The difference can be linearly represented as in (8).

(8) a. ***to*-variant**: NP_0 CAUSES NP_1 TO GO TO NP_2
b. **double object variant**: NP_0 CAUSES NP_1 TO HAVE NP_2
(Krifka, 1999, 263, ex. 24)

The multiple meaning accounts typically take a uniform approach to the alternation, assuming no variation across verb types. An exception to this are, e.g. Jackendoff (1990) and Rappaport Hovav and Levin (2008), who indicate differences between verbs/verb-classes, and thus argue for a more fine-grained

and verb-sensitive analysis of the alternation. In what follows, we focus on the analysis of Rappaport Hovav and Levin (2008).

In their paper focusing on the English *give*- and *send*-type verbs, Rappaport Hovav and Levin (2008) argue that even though both verb types alternate with the PP variant, only *send*-verbs show two meanings - caused possession and caused motion. *Give*-type verbs are analysed as denoting caused possession only.[5] Essentially, it is shown that *give*-verbs lack a path/goal argument. For example, in contrast to *send*-verbs, *give*-type verbs cannot occur in questions with locative *wh*-words, as illustrated in (9).

(9) a. ***Where** did you give the ball?
b. **Where** did you throw the ball? To third base.
c. **Where** did you send the bicycle? To Rome.

(Rappaport Hovav and Levin, 2008, 137)

Related to this is the fact that the preposition *to* with *give*-verbs can only take animate complements; in contrast, *send*-type verbs allow both animate and inanimate goals. This is illustrated in (10).

(10) a. I gave the package to **Maria/*London**.
b. I sent the package to **Maria/London**.
c. I threw the ball to **Maria/the other side of the field**.

(Rappaport Hovav and Levin, 2008, 138)

These and other differences mentioned in Rappaport Hovav and Levin (2008) follow if *give*-type verbs are taken to lexicalise caused possession only, in contrast to *send*-type verbs, which may also lexicalise spatial goals (Rappaport Hovav and Levin, 2008, 137).

Extending the analysis to other dative alternating verbs, Rappaport Hovav and Levin (2008) distinguish two major groups of such verbs, based on their meaning: a) verbs that have **only the caused possession meaning**: *give*- , *promise*-, and *tell*-type verbs, and b) verbs that have **either the caused possession or caused motion meaning**, depending on the variant: *send*-, *throw*-, *bring*-, *e-mail*-type verbs. This analysis implies that English has developed two ways of marking recipients - one as an indirect object and the other as a complement of the preposition *to*. The question thus arises as to why such two ways of marking recipients have emerged in English. As Rappaport Hovav and Levin (2008) suggest, the relatively fixed word order of English, as well as the language's limited case morphology may have played a role in this development.

[5] With verbs that have one meaning but two verb frames available, factors such as information structure or DP heaviness determine which of the two variants is preferred.

Fixed word order, case morphology and their relation to the productivity of the dative alternation In English, the dative alternation arose in the Middle English period, around the time in which the system of morphological case marking eroded. At the same time, the word order, fairly free in the Old English period, became fixed (Allen, 1995; McFadden, 2002; Polo, 2002). Old English lacked the dative alternation. The theme and recipient appeared in either order, as full DPs, with the recipient marked with dative and the theme with accusative. Both the ACC>DAT and DAT>ACC object orders were attested in Old English. With time, the morphological case system simplified and the *to* variant gradually emerged. With this change, a preference for interpreting the first object as a recipient, and the second object as a theme came to being (McFadden, 2002). Once the third person pronouns lost their accusative/dative distinction, the theme-recipient order became lexicalised exclusively with the prepositional variant (Polo, 2002). The result of these developments is the dative alternation.

A similar correlation between fixed word order, case morphology and the use of the dative alternation is observed elsewhere. For example, Dutch, in parallel to English, has no accusative/dative distinction, a fairly fixed word order, and it shows extensive use of the dative alternation (Hoekstra, 1991).

(11) a. Jan gaf **Marie** een boek. (Dutch)
Jan gave Marie a book
'Jan gave Marie a book.'

b. Jan gaf een boek **aan Marie**.
Jan gave a book to Marie
'Jan gave a book to Marie.'

(Hoekstra, 1991, 351, ex. 2)

In contrast, German and Polish maintained the accusative/dative distinction, and they display a relatively free word order. As predicted from the analysis of Rappaport Hovav and Levin (2008), both of these languages do not show the dative alternation with *give*-type verbs, as illustrated in (12) and (13).

(12) a. Dałem **dziewczynce** kwiaty. (Polish)
gave.2SG girl.DAT flowers.ACC
'I gave the girl some flowers.'

b. *Dałem kwiaty **do dziewczynki**.
gave.2SG flowers.ACC to girl.GEN
Intended: 'I gave some flowers to the girl.'

(13) a. Ich gab **diesem Mädchen** einige Blumen (German).
I.NOM gave this.DAT girl.DAT some.ACC flowers.ACC
'I gave this girl some flowers.'

b. *Ich gab einige Blumen **zu diesem Mädchen**.
I.NOM gave some.ACC flowers.ACC to this.DAT girl.DAT
Intended: 'I gave some flowers to this girl.'

(Hameyer, 1979, 235, ex. 2, 3)

However, that *give*-type verbs do not show the dative alternation in German or Polish is an oversimplification. Although not frequent, examples of *give*-type verbs that alternate with the *an*+DP prepositional variant can be found (Berit Gehrke, p.c.), e.g. *gibt ihn an die Großmutter* 'give them/her to the grandmother' or *gibt sie an Klubs* 'give it to clubs' (both found on the Internet). Similar examples also exist in Polish, although they seem to be limited to the unprefixed verb *dać* 'to give' (out of all non-alternating verbs), and verbs that occur with PPs of inanimate meaning. This is illustrated in (14).

(14) a. Powinniśmy go **dać do szkoły** baletowej.
we.should him.ACC give to school.GEN ballet.GEN
'We should send him to a ballet school.'

(The National Corpus of Polish, NKJP)

b. Pościel muszę **dać do prania**.
bed.sheets.ACC I.must to.give to laundry.GEN
'I must bring the bed sheets to the laundry.'

(NKJP)

All these examples resort to the use of *dać* 'to give' in a motion meaning, i.e. 'to send' or 'to bring', instead of 'to give'. Thus, we do not take these examples to provide counterexamples to the generalisation of Rappaport Hovav and Levin (2008).

Moreover, recall from Chapter 2 that we defined dative-marked arguments as entities whose mental state is affected, i.e. entities that are animate. The PPs in (14) are inanimate, and therefore they are not likely to be mentally affected, blocking such inanimate entities from being realised as dative-marked DPs. Instead, a lexicalisation as a PP argument is made available. This is illustrated in (15).

(15) a. Powinniśmy go **dać szkole** baletowej.
we.should him.ACC give school.DAT ballet.GEN
'We should send him to a ballet school.'

b. Pościel muszę **dać** ***praniu** **/pralni**.
bed.sheets.ACC I.must to.give laundry.DAT laundromat.DAT
'I must bring the bed sheets to the laundromat.'

In (15a), dative use is allowed because the dative-marked DP can denote a group of people, e.g. the ballet school teachers. The example in (15b) illustrates more

clearly that inanimate nouns denoting animate entities are allowed in the dative use, while inanimate nouns that denote inanimate entities are blocked from the dative use. The noun *pranie* 'laundry', unambiguously denoting an inanimate entity, cannot be used in the dative. However, the noun *pralnia* 'laundromat', which can denote the laundromat staff, can be lexicalised as the dative DP or the PP.[6] Therefore, it seems that apart from the correlation of a language's accusative /dative distinction and rigidity of word order with the dative alternation, animacy might also play a role in whether a given DP is allowed to alternate with a PP variant.

3.2.2. Polish - one way of lexicalising recipients

English has developed a two-way marking of recipients. Namely, with some verbs, recipients can be lexicalised either as a DP or as a PP. However, in some languages, PPs can lexicalise only goals, never recipients. One of such recipient-goal differentiating languages is Polish. In Polish, spatial goals are typically introduced by the preposition *do* 'to', recipients are realised as a dative-marked indirect object of a DAC. We illustrate the difference in (16) and (17).

(16) **recipient**

a. Tomek dał **Kasi** jabłko.
Tomek.NOM gave.3SG.M Kasia.DAT apple.ACC
'Tomek gave an apple to Kasia.'

b. Tomek pożyczył **Kasi** książkę.
Tomek.NOM lent.3SG.M Kasia.DAT book.ACC
'Tomek lent Kasia a book.'

(17) **spatial goal**

a. Tomek wysłał **do Kasi** list.
Tomek.NOM sent.3SG.M.PST to Kasia.GEN letter.ACC
'Tomek sent a letter to Kasia.'

b. Tomek rzucił **do Kasi** piłkę.
Tomek.NOM threw.3SG.M.PST. to Kasia.GEN ball.ACC
'Tomek threw a ball to Kasia.'

[6] Similarly, animate DPs that denote inanimate entities can occur in the PP variant of *dać* 'to give', as in (i).

(i) Pościel muszę dać **do Tomka**
bed.sheets.ACC I.must give to Tomek.GEN
'I must bring the bed sheets to Tomek's (room).'

However, while it is fine to say (i), it is only so if *Tomek* denotes a place that belongs to *Tomek*, e.g. his room. Thus, the PP in (i) denotes an inanimate entity.

Based on the analysis of the dative alternation in English in Rappaport Hovav and Levin (2008), we expect that languages which morphologically differentiate between recipients and goals will not show the dative alternation with verbs that do not lexicalise a path. Therefore, we expect Polish *send*-type verbs to alternate between the DAC and PP variants, and *give*-verbs to have only the DAC variant. This is indeed the case, with exceptions discussed at the end of the previous section. No PP headed by *do* 'to' is possible with *dać* 'to give', as in (18a). In contrast, with the motion verb *wysłać* 'to send', the PP variant is acceptable, as in (18b).[7]

(18) a. Tomek dał **Kasi** /***do Kasi**
Tomek.NOM gave.3SG.M.PST Kasia.DAT /to Kasia.GEN
jabłko.
apple.ACC
'Tomek gave Kasia an apple/an apple to Kasia.'

b. Tomek wysłał **Kasi** /**do Kasi** list.
Tomek.NOM sent.3SG.M.PST Kasia.DAT /to Kasia.GEN letter.ACC
'Tomek sent Kasia a letter/a letter to Kasia.'

Similarly, Polish verbs of the *promise*- and *tell*-type do not alternate, which supports the analysis of Rappaport Hovav and Levin (2008).[8]

However, regardless of the similarities between Polish and English discussed in this section, there exist some differences between the DOC of English and the DAC of Polish. These differences indicate that the English DOC and the Polish DAC should be taken to involve different structures. We discuss these observations in the section to follow.

3.3. Syntactic considerations

One of the problems for any syntactic analysis of dative alternating verbs is the question as to whether the double object frame is structurally related to the prepositional frame. Research on English suggests that on learning a newly coined DOC verb, speakers automatically know that the verb also licenses a prepositional frame, and vice versa (Groppen et al., 1989; Marantz, 1984, e.g.). This can be explained if there is a rule which ties the double object frame together with the prepositional frame. Many have argued that the rule linking the two frames is syntactic (Baker, 1988b; Emonds, 1972, 1976; Fillmore, 1965; Larson, 1988; Oehrle, 1976, e.g.). However, for English, there is syntactic evidence

[7] Other directional PPs are also not possible, e.g. *ku Kasi* 'towards Kasia$_{DAT}$', *w stronę Kasi* 'towards side$_{ACC}$ Kasia$_{GEN}$'.

[8] Similar observations can be made of German, mentioned earlier in the section, a language akin to Polish concerning its differentiation between goals and recipients.

which suggests that the two frames might not be related, but rather constitute two different structures (Kayne, 1984).

3.3.1. English DOCs - small clause analysis

For English, there is syntactic evidence from nominalisation and extraction patterns, which indicates that the double object frame projects a small clause. The small clause analysis can be further supported by *again*-modification. In what follows, we first discuss the argument from nominalisation. Then, we briefly present the small-clause analysis of the English DOCs, followed by a brief discussion on the supporting evidence from extraction and *again*-modification.

Argument from nominalisation Some restrictions aside, it is generally true that deverbal nominalisations in English allow the object of the verb to surface as the genitive of the nominalisation, or as a complement to the *of*-phrase embedded in the nominal, as in (19).

(19) to examine **the problem**
   a. **the problem's** examination
   b. the examination of **the problem**

(Beck and Johnson, 2004, 98, ex. 3, modelled on Kayne 1984)

However, nominalisation of the type represented in (19) is only possible with objects that are true arguments of the verb. Objects that are subjects of small clauses cannot occur with nominalised verbs.

(20) to believe **Thilo** handsome
   a. *the belief of **Thilo** handsome
   b. ***Thilo's** belief handsome

(Beck and Johnson, 2004, 99, ex. 4, modelled on Kayne 1984)

Because of the differences between small clause subjects and true internal arguments concerning nominalisation, illustrated in (19) and (20), deverbal nominalisation can be used as a diagnostics to determine the nature of the object, whether it is internal or external to the verb. In (20), the object is external to the verb; it is a subject of a small clause.

As argued in Kayne (1984), the nominalisation diagnostic indicates that the IO of the English DOC, i.e. the first object, is a subject of a small clause. This is illustrated in (21).

(21) to present **Satoshi** the ball
   a. *the presentation of **Satoshi** of the ball

b. ***Satoshi's*** presentation of the ball

(Beck and Johnson, 2004, 99, ex. 5, modelled on Kayne 1984)

In contrast, in the prepositional variant, the first object (the DO) is a true argument of the verb, as in (22).

(22) to present **the ball** to Satoshi

a. the presentation of **the ball** to Satoshi

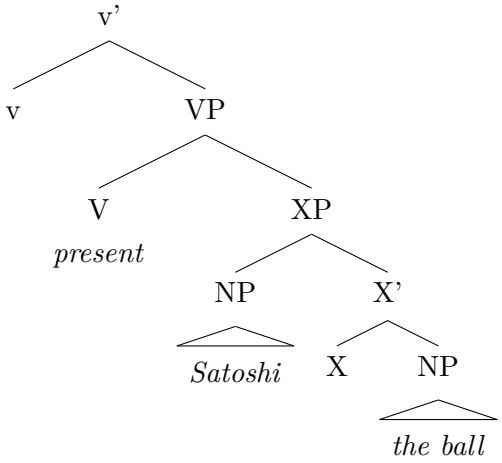
b. **the ball's** presentation to Satoshi

(Beck and Johnson, 2004, 99, ex. 6, modelled on Kayne 1984)

On the basis of these nominalisation patterns, Kayne (1984) argues that the two objects in the double object frame are projected as part of a small clause, just like *Thilo handsome* in *to believe Thilo handsome*, in (20).

Following Kayne (1984), Beck and Johnson (2004) argue that "neither NP of the double object frame is an argument of the verb" (Beck and Johnson, 2004, 99). Adopting the Larsonian (Larson, 1988, 1990, et seq.) architecture of the verb, Beck and Johnson (2004) propose that the double object frame in English has the structure represented in (23).

(23) **double object frame**

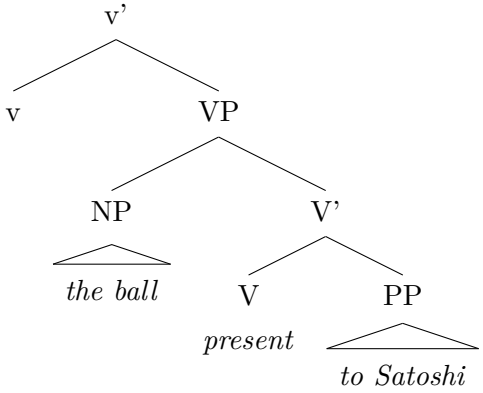


(Beck and Johnson, 2004, 100, ex. 9)

In (23), both objects in the DOC frame merge as part of a small clause, *XP*, which is a complement of *V*. Similar small clause accounts of English DOCs include, e.g. Folli and Harley (2006); Harley (1997, 2003, 2008); Hornstein (1995); Kayne (1984).

In contrast, in the prepositional frame, the direct object and the PP are projected within the *VP*. Namely, the DO in the specifier position and the PP in the complement position, as in (24).

(24) **prepositional frame**



(Beck and Johnson, 2004, 100, ex. 7)

Thus, in syntactic terms, the first object of the double object frame in English differs from the first object of the prepositional frame. The former is a subject of a small clause while the latter is part of the *VP* projection. This analysis is supported by extraction phenomena.

Argument from extraction Extraction phenomena, illustrated in (25), indicate that the IO of a DOC is external to *V*, while the DO of the PP-variant is an internal argument.

(25) a. *Who did you send **a friend of** a book?

b. What did you send **a book about** to my friend?

(Beck and Johnson, 2004, 102, ex. 12)

One cannot extract out of the first (indirect) object of the double object frame, as in (25a). In contrast, one can extract out of the first (direct) object of the prepositional frame, as in (25b). It has been extensively argued in the literature that subjects constitute islands for extraction (Chomsky, 1986; Diesing, 1992; Kayne, 1984; Ross, 1967, a.o.). Thus, under (23), where the IO of DOC is a subject of a small clause, the ungrammaticality of (25a) is expected. Also, under (24), we expect the grammaticality of (25b). The small clause analysis of English DOCs is further supported by *again*-modification.

Argument from *again*-modification Modification of *again* provides yet another piece of evidence for a small clause projection in English DOCs. As initially argued in von Stechow (1995, 1996) and later, e.g. in Beck and Johnson (2004); Snyder (2001), with complex predicates modified by *again*, two possible

meanings are available, repetitive or restitutive, depending on which event the adverbial modifies. This is illustrated in (26).

(26) Sally opened the door again.

a. **repetitive meaning**:
Sally opened the door, and that had happened before.

b. **restitutive meaning**:
Sally opened the door, and the door had been open before.

(Beck and Johnson, 2004, 106, ex 19, 20)

In both the repetitive and restitutive meaning, *again* presupposes another event. However, on the repetitive meaning, as in (26a), the previous event denotes Sally opening the door, i.e. the activity event. In contrast, on the restitutive meaning, as in (26b), the previous event is that of the door being open, i.e. the change of the patient's state.[9] Structurally then, on the restitutive reading, *again* modifies the result state/small clause. On the repetitive reading, *again* modifies the causing activity event. This can be represented as in (27a) and (27b), respectively.

(27) a. [**vP** [$_{vP}$ Sally [$_{v'}$ v [$_{VP}$ V* [$_{VP}$ BECOME [$_{AP}$ open the door]]]]] **again**]

b. [$_{vP}$ Sally [$_{v'}$ v [$_{VP}$ V* [$_{VP}$ BECOME [**AP** [$_{AP}$ open the door] **again**]]]]]

(Beck and Johnson, 2004, 108, ex. 29)

Because with complex predicates, *again* modification gives rise to a structural ambiguity between a repetitive and a restitutive reading, it can serve as a diagnostic for the projection of a small clause. Mono-clausal predicates are expected to show the repetitive meaning only; bi-clausal predicates are expected to show both the repetitive and the restitutive meaning. Beck and Johnson (2004) resort to this test to investigate the internal make-up of the English DOC. As the authors argue, with *again*, English *give* is ambiguous between the repetitive and restitutive meaning.

(28) Thilo gave Satoshi the map **again**.

a. Thilo gave Satoshi the map, and that had happened before.

b. Thilo gave Satoshi the map, and Satoshi had had the map before.

[9] We abstract away from the discussion as to whether states constitute events. We do not distinguish between 'events', comprising only of non-states, and 'eventualities', comprising of states and non-states. We use the term 'event' for both states and non-states.

(Beck and Johnson, 2004, 113, ex. 48, 49)

Because of this ambiguity, the syntactic structure of *give* is taken to be complex. Moreover, as Beck and Johnson argue, both meanings, the restitutive and repetitive, are also present with the prepositional frame of ditransitive verbs in English.

(29) Thilo gave the map to Satoshi **again**.

a. Thilo gave the map to Satoshi, and that had happened before.

b. Thilo gave the map to Satoshi, and Satoshi had had the map before.

(Beck and Johnson, 2004, 116, ex. 67)

The complexity of the structure of English DOCs is similar to English resultative constructions, which, when modified by *again*, are ambiguous between the resultative and repetitive meaning, as illustrated in (30).

(30) Sally hammered the metal flat **again**.

a. Sally hammered the metal flat, and that had happened before.

b. Sally hammered the metal flat, and the metal had been flat before.

(Beck and Johnson, 2004, 108, ex. 32.33)

Similarly to DOCs, *again* in resultatives can either attach to the verb describing the event, or to the small clause describing the result state, namely [PRO flat]$_{SC}$. Snyder (2001) argues that **the availability of English-type resultatives**, as in (30), **is correlated with the availability of bi-clausal structures with one verb**, as in English DOCs, **in a given language**. Crucially for the discussion on DACs in Polish, resultativity in Polish is lexicalised differently than in English. Namely, resultatives in Polish are typically (although not exclusively) encoded with verb prefixation. Therefore, a question arises. Since English-type resultatives are unproductive in Polish, do Polish DACs project a small clause? We focus on this problem in Section 3.3.2. First, though, a few words on the correlation mentioned are due.

3.3.1.1. English-type resultatives and bi-clausal structures

In his paper on the nature of syntactic variation, Snyder (2001) shows that the availability of the English-type structures listed in (31) is not universal and varies across languages.

(31) a. John painted the house red. (resultative)

b. Mary picked the book up/picked up the book. (verb-particle)

c. Fred made Jeff leave. (*make*-causative)

d. Bob put the book on the table. (*put*-locative)

e. Alice sent the letter to Sue. (*to*-dative)

f. Alice sent Sue the letter. (double object dative)

(Snyder, 2001, 325, ex. 1)

In the examples in (31), English permits the main verb to combine with a secondary predicate to form a new expression that semantically resembles a simple verb. Typically, the English constructions above are analysed as projecting a small clause (see Bruening, 2018, for a concise overview of the analyses).

Not all languages show equivalents of the English structures in (31). For example, in Polish, only the last three examples of those listed in (32) might have an equivalent of sorts.

(32) a. *Jan pomalował **dom** **czerwony**.
Jan.NOM pained house.ACC red.ACC
Intended: 'Jan painted the house red.'

b. *Maria **niosła** książkę **pod** /**niosła pod** książkę.ACC.
Mary.NOM carried book under /carried under book
Intended: 'Maria picked the book up/picked up the book.'

c. *Franciszek zrobił **Jarka** **wyjść**.
Franciszek.NOM made Jarek.ACC to.leave
Intended: 'Franciszek made Jarek leave.'

d. Borys położył **książkę** **na stole** /**stół**.
Borys.NOM put book.ACC on table.LOC table.ACC
'Borys put the book on the table.'

e. Alicja wysłała **list** **do Zuzanny**.
Alicja.NOM sent letter.ACC to Zuzanna.GEN
'Alicja sent the letter to Zuzanna.'

f. Alicja wysłała **Zuzannie** **list**.
Alicja.NOM sent Zuzanna.DAT letter.ACC
'Alicja sent Zuzanna the letter.'

To express the meaning of the ungrammatical sentences in (32), Polish resorts to, e.g. a) a secondary predicate adjunct PP, b) a verbal prefix, or c) a complex sentence, all illustrated respectively in (33).

(33) a. Jan pomalował dom **na czerwono**.
Jan.NOM painted house.ACC on red
'Jan painted the house red.'

b. Maria **pod**niosła książkę.
Mary.NOM under.carried book.ACC
'Maria picked the book up.'

c. Franciszek poprosił Jarka, **aby (pro) wyszedł**.
Franciszek.NOM asked Jarek.ACC that he left
'Franciszek made Jarek leave.'

If the availability of the complex predicate family of constructions, like those listed in (31), is due to a parameter, where should we place Polish? Assuming a given parameter is either on or off, it is reasonable to hypothesise that the structures in (32d)-(32f), although available in Polish, do not project a small clause, as they do in English.

Under Snyder's analysis, the hypothesis that the DAC and PP frames of Polish ditransitives do not project a small clause is predicted. The hypothesis follows Snyder's diagnostics for the complex predicate structure, namely the availability of the English type resultatives.

> If we speculate that the availability of the complex predicate family of constructions is indeed a point of parametric variation, the resultative construction is perhaps the most appropriate diagnostic for the family's availability, because it does not involve any idiosyncratic, closed-class lexical items (in contrast to the verb-particle construction), and because it displays, in an especially clear-cut form, the characteristic semantic properties of the complex-predicate class (e.g. the creation of an accomplishment predicate [...] from an activity verb and an adjective). (Snyder, 2001, 326-27)

The example in (34) illustrates the English resultative construction.

(34) a. Woolite safely soaks all your fine washables **clean**.
b. [S]he dipped a finger into the peanut butter and licked it **clean**.
(Levin and Rappaport Hovav, 1995, 34-35)

In contrast to English, Polish (like other Slavic languages) makes little use of adjectives in secondary predicate constructions (Hentschel, 2009; Szajbel-Keck, 2014, 2015). A small group of adjectives can function as depictive secondary predicates, as in (35a). However, such adjectives can have only the depictive meaning, never the resultative one, as in (35b) (Szajbel-Keck, 2014, 2015).

(35) a. **depictive secondary predicate**

Jan$_i$ wrócił do domu **głodny**$_i$.
Jan.NOM returned to home hungry.NOM
'Jan returned home hungry.'

b. **resultative secondary predicate**

*Jan pomalował **drzwi**$_i$ **czerwone**$_i$.
Jan.NOM painted door.ACC red.ACC

Intended: 'Jan painted the door red.'

(Szajbel-Keck, 2014, ex.1-2)

Therefore, the English resultative in (34) cannot be expressed by means of an adjectival secondary predicate in Polish. The same notion can be expressed with verbal prefixation. This is illustrated in (36).

(36) a. Woolite bezpiecznie **wy**moczy całe twoje pranie (**do**
Woolite safely will.out.soak all your washables (until
czysta /***czyste**).
clean /*clean)
'Woolite will safely soak all your washables (until clean).'

b. Wsunęła palec do masła orzechowego i **wy**lizała go (**do**
dipped finger to butter peanut and out.licked it (until
czysta /***czystego**).
clean /*clean)
'She dipped her finger into the peanut butter and licked it clean.'

In (36), it is the prefix, marked in bold, that conveys the resultative meaning corresponding to the English resultative construction. The same sentences with unprefixed verbs, i.e. *moczyć* 'to soak' and *lizać* 'to lick', are ungrammatical. Moreover, adjectival resultative phrases of the English type are not licensed, i.e. *czyste* 'clean' and *czystego* 'clean' are ungrammatical in (36), even with prefixed verbs. Instead of the resultative adjectives, a prepositional phrase may be added to further define the result state expressed by the prefix. However, even without the PP *do czysta* 'until clean', the prefixed verbs in (36) convey the same meaning as the resultative construction of English in (34). Thus, Polish and English differ in how resultative constructions are formed. In contrast to English, resultativity in Polish is formed predominantly through prefixation.

However, it has to be noted that not all prefixes in Polish, or Slavic, introduce resultative phrases. There is evidence that in general, prefixes in Slavic languages split into two main groups, **internal/lexical** prefixes and **external/superlexical** prefixes (Arsenijević, 2006; Babko-Malaya, 1999; Gehrke, 2008; Jabłońska, 2007; Ramchand, 2004; Romanova, 2004, 2006; Svenonius,

2004, a.o.).[10,11] Crucially, only lexical prefixes are taken to introduce a resultative phrase in Slavic, not the superlexical ones (following the insights from Gehrke, 2008; Ramchand, 2004; Romanova, 2004, 2006; Svenonius, 2004, a.o.).

Summing up, resultativity in Polish is encoded predominantly with lexical prefixes, in contrast to resultative adjectives in English. Thus, under Snyder (2001), who proposes a correlation between the availability of English-type resultatives with bi-clausal structure of a verb, it could be the case that Polish DACs lack a small clause projection. Moreover, one might further assume, following von Stechow (1995), that Polish lacks a rule that combines the verb with the small clause, the so-called *Principle R.*[12] As von Stechow (1995) suggests, this principle might be subject to some cross-linguistic variation, depending on the availability of resultative constructions of the English-type in a given language. Building on von Stechow (1995) and Snyder (2001), the parametric nature of Principle R is also argued for in Beck and Snyder (2001). Crucially, if a language does not have Principle R, resultative constructions of the English type are expected to be ungrammatical. We focus on these predictions with regard to Polish in the section to follow.

3.3.2. Polish DACs - against the small clause analysis

In the discussion on English in Section 3.3.1, we briefly presented the arguments behind the small clause analysis of the English DOCs. Following Beck and Johnson (2004); Beck and Snyder (2001); Snyder (2001); von Stechow (1995), we

[10] In most cases, superlexical prefixes: a) do not affect the argument structure of the verb, b) have an effect on grammatical (outer) aspect but do not change the (inner) aspectual class, c) can stack on top of another prefix, d) have systematic, compositional, adverbial-like meaning, similar to quantificational adverbs or phrasal verbs ('begin to X', 'end to X'), d) typically select for imperfective verbs. In contrast, in general, lexical prefixes: a) can affect the argument structure of the base verb, obligatorily requiring a projection of a direct object, b) change the aspectual class of an unprefixed verb, c) do not stack on top of other prefixes, d) have idiosyncratic, spatial or completive meaning.

[11] It should be noted that there may exist some difficulties with regard to assigning a given prefix to a particular type, as many homophonic forms exist. However, the diagnostics proposed in the literature, and discussed in this section, show strong generalisations. Thus, while exceptions to the tests exist, we believe that the general tendencies support the main distinction into lexical and superlexical prefix types.

[12] Principle R can be defined in the following terms:

(i) *Principle (R)* (Beck and Johnson, 2004, modelled on von Stechow (1995))
If $\alpha = [V_\gamma\ SC_\beta\ ]$ and β' is of type $\langle i,t\rangle$ and γ' is of type $\langle e,...\langle e, \langle i,t\rangle\rangle\rangle$ (an n-place predicate), then
$\alpha' = \lambda x_1 ... \lambda x_n \lambda e.\gamma'_e(x_1)...(x_n)\ \&\ \exists e'[\ \beta'(e')\ \&\ CAUSE(e')(e)]$

have also indicated that there might exist a correlation between the availability of English-type resultatives and the licensing of small clause structures in a given language. We further noted that Polish does not productively derive resultative constructions of the English type. Thus, in this section, we ask the question as to whether the Polish DAC shows the small clause structure of the English DOC.

More specifically, we explore whether the IO of Polish DACs is an argument internal or external to the verb. We also ask whether the IO is a subject of a small clause. To answer these questions, we apply the same diagnostics as the ones used for English, namely: nominalisation, extraction and *again*-modification. Additionally, we use the Slavic-specific test of distributive *po*-phrases. Based on these, we show that a small clause analysis does not apply to Polish DACs, and although the IO is verb-external, it is not a small clause subject. In the analysis to follow, in Section 3.3.3, we propose that the externality of the IO is due to it being licensed by a verb-external applicative head.

Argument from nominalisation In Polish, the object of the verb appears as a genitive DP in deverbal nominalisations. This is illustrated in (37b).

(37) a. analizować problem
examine problem
'to examine the problem'

b. analizowanie **problemu**
examination problem.GEN
'the examination of the problem'

Similarly to English, only verb-internal objects can complement deverbal nominalisations. As already briefly indicated in Section 2.1 of Chapter 2, the nominalisation test applied to Polish indicates that the DO of the DAC is the internal argument of the verb. The DO can complement a deverbal nominalisation, as in (38a). As illustrated in (39a), the same is true of the DO of the PP variant. In contrast, the IO of the DAC variant and the prepositional argument are external to the verb; they cannot complement the nominalisation, as illustrated in (38b) and (39b).

(38) wysłać list Ewie
send letter.ACC Ewa.DAT
'to send a letter to Ewa'

a. wysłanie **listu**
sending letter.GEN

b. wysłanie ***Ewy** /***Ewie**
sending Ewa.GEN /Ewa.DAT

(39) wysłać list do Ewy
send letter.ACC to Ewa.GEN
'to send a letter to Ewa'

a. wysłanie **listu**
sending letter.GEN

b. *wysłanie **Ewy**
sending Ewa.GEN

The fact that the prepositional argument *do Ewy* 'to Ewa' is external to the verb is expected; after all, it is licensed by the preposition. However, the externality of the IO of DAC, demonstrated above, is less obvious.

One could say that the ungrammaticality of (38b) and (39b) arises from the incompleteness of the nominalisation, i.e. the lack of the DO. However, even on addition of the DO, a nominalisation with a genitive complement derived from the IO is not accepted, as illustrated in (40).

(40) *wysłanie **Ewy** list
sending Ewa.GEN letter.ACC
Intended: 'sending of Ewa the letter'

Recall also from Chapter 2 (ex. (3a) and (2)) that the IO of a DAC in Polish cannot become the complement of a nominalisation regardless of whether its case is preserved or changed to genitive, as in (40). These verb-external characteristics of the IO can be further demonstrated with extraction phenomena.

Argument from extraction *Wh*-questions in Polish can be formed by pied-piping of the entire *wh*-DP, as in (41a), or by left-branch extraction (LBE), as in (41b).

(41) Tomek dał Ewie czerwoną sukienkę.
Tomek.NOM gave Ewa.DAT red.ACC dress.ACC
'Tomek gave Ewa a red dress.'

a. pied-piping

Jaką sukienkę$_i$ Tomek dał Ewie t_i?
what.kind.of.ACC dress.ACC Tomek.NOM gave Ewa.DAT ?
'What kind of dress did Tomek give to Ewa?'

b. left branch extraction

Jaką$_i$ Tomek dał Ewie t_i **sukienkę**?
what.kind.of.ACC Tomek.NOM gave Ewa.DAT dress.ACC?
'What kind of dress did Tomek give to Ewa?'

In general, as noted in Rappaport (2000), we cannot extract out of Polish PP adjuncts and bare NP-complements in the DO position. However, attributive,

demonstrative and quantificational prenominal constituents can be extracted out of DOs, as illustrated respectively in (42).[13]

(42) a. **attributive**

Jaką$_i$ kupiłeś [$\boldsymbol{t}_i$ książkę]?
what.kind.of.ACC you.bought book.ACC
'What kind of book did you buy?'

b. **demonstrative**

Którą$_i$ kupiłeś [$\boldsymbol{t}_i$ książkę]?
which.ACC you.bought book.ACC
'Which book did you buy?'

c. **quantificational**

Ile$_i$ kupiłeś [$\boldsymbol{t}_i$ książek]?
how.many you.bought books.ACC
'How many books did you buy?'

(Rappaport, 2000, 183, ex. 44)

Therefore, if IOs are verb-external, as indicated by nominalisation phenomena, we expect them to constitute islands for extraction, as is typical of (non-derived) subjects (Chomsky, 2008; Ross, 1967; Stepanov, 2007; Takahashi, 1994, a.o.).[14] This seems to be the case. As illustrated in (43), extraction out of the

[13]It should be noted that it has also been demonstrated that extraction out of direct objects is possible only out of non-specific (indefinite) objects (Willim, 1989; Witkoś, 1993, e.g.). Thus Polish shows definiteness effects with regard to extraction out of DPs/NPs. This is illustrated with a PP-argument extraction (or lack of thereof) in (i).

(i) a. **O** **kim**$_i$ czytałeś [ksiażkę $\boldsymbol{t}_i$]?
about whom.LOC read book.ACC
'About whom did you read a book?

b. ***O** **kim**$_i$ czytałeś [tę książkę $\boldsymbol{t}_i$]?
about whom.LOC read this.ACC book.ACC
Intended: 'About whom did you read this book?' (Witkoś, 1993, 142)

c. ***O** **kim**$_i$ czytałeś [książkę Piotra $\boldsymbol{t}_i$]?
about whom.LOC read book.ACC Piort.GEN
Intended: 'About whom did you read Piotr's book?' (Witkoś, 1993, 107)

[14]Based on the examples in (i), Jiménez-Fernández (2012) argues that subject islandhood in Polish can be alleviated when the subject is indefinite, as in (i).

(i) a. Których książek [autorzy t_i] wywołali skandal?
which.GEN books.GEN authors.NOM caused scandal.ACC
'Which books did (some) authors of cause a scandal?'

b. *Których książek$_i$ [ci autorzy t_i] wywołali skandal?
which.GEN books.GEN these.NOM authors.NOM caused scandal.ACC
Intended: 'Which books did these authors of cause a scandal?'

(Jiménez-Fernández, 2012, ex. 19)

IO position is not accepted. This suggests that IOs of Polish DACs are verb-external.

(43) Tomek dał [nowej koleżance z klasy] [mały podarunek].
Tomek.NOM gave new.DAT friend.DAT from class.GEN small.ACC gift.ACC
'Tomek gave the new friend from his class a small gift.'

a. extraction out of indirect object

*/??**Jakiej**$_i$ dał Tomek [$\boldsymbol{t}_i$ koleżance z klasy] [mały podarunek]?
what.kind.of.DAT gave Tomek.NOM friend from class small gift

Intended: 'What kind of friend from his class did Tomek give the small gift?'

b. [**Jakiej koleżance z klasy**] dał Tomek $\boldsymbol{t}_i$ [mały podarunek]?
what.kind.of.DAT friend.DAT from class.GEN gave Tomek.NOM small.ACC gift.ACC

'Which friend form his class did Tomek give a small gift?'

c. extraction out of direct object

Jaki$_i$ dał Tomek [nowej koleżance z klasy] [$\boldsymbol{t}_i$ podarunek]?
what.kind.of.ACC gave Tomek.NOM new friend from class gift.ACC

'What kind of gift did Tomek give the new (female) friend from his class?'

Similarly, to IOs, one cannot extract out of the subject position.

Note, however, that it is in fact not clear whether (ia) shows extraction out of the subject position, or fronting within the subject position. In Polish, questions are formed either by preserving the word order of the indicative sentence, as e.g. in (i) or by movement of both the *wh*-phrase and the verb. Crucially, once we move the verb above the subject, as in (ii), the extraction of the same type as presented in (ia) becomes impossible, regardless of the definiteness of the main nominal.

(ii) *Których książek wywołali [autorzy t_i] skandal?
which.GEN books.GEN caused authors.NOM scandal.ACC
Intended: 'Which books did (some) authors of cause a scandal?'

Because only (ii) unambiguously shows extraction out of the subject position, we take it that (ia) does not provide an argument against our assumption as to the islandhood of the subject position in Polish.

(44) [Przemiły chłopiec] dał koleżance mały podarunek.
very.kind.NOM boy.NOM gave friend.DAT small.ACC gift.ACC
'A very kind boy gave his friend a small gift.'

a. ***Jaki**$_i$ dał [t_i chłopiec] koleżance mały
what.kind.of.NOM gave boy.NOM friend.DAT small.ACC
podarunek?
gift.ACC
Intended: 'What kind of boy gave his friend a small gift?'

b. [**Jaki chłopiec**] dał koleżance mały
what.kind.of.NOM boy.NOM gave friend.DAT small.ACC
podarunek?
gift.ACC
'What kind of boy gave his friend a small gift?'

Thus, as demonstrated in examples (43)-(44), with regard to extraction phenomena, IOs show behaviour similar to subjects and different from direct objects.

Moreover, although not discussed in Rappaport (2000), one can extract PP-arguments (in contrast to PP-adjuncts) out of the DO position. However, one cannot extract PP-arguments out of the IO position, as in (45).

(45) Tomek dał [nauczycielce od polskiego] [pracę o
Tomek.NOM gave teacher.DAT from Polish essay.ACC about
'Lalce'].
'Lalka'
'Tomek gave the Polish teacher an essay about the novel 'Lalka'.'

a. extraction out of indirect object[15]

***Od czego** Tomek dał [**nauczycielce** t_i] [pracę o
from what Tomek.NOM gave teacher.DAT essay.ACC about
'Lalce']?
'Lalka'
Intended: 'Of what did Tomek give the teacher an essay about 'Lalka'?'

b. extraction out of direct object

O czym$_i$ Tomek dał [nauczycielce od polskiego]
about what Tomek.NOM gave teacher.DAT from Polish

[15]Note that, in contrast to English, Polish does not strand prepositions, therefore extraction from the complement of P is not possible.

(i) ***Czym**$_i$ Tomek kupił **książkę o** t_i?
What Tomek bought book about
Intended: 'What did Tomek buy a book about?'

[**pracę** t_i]?
essay.ACC
'About what did Tomek give the Polish teacher an essay?'

In the prepositional variant, extraction out of the DO is possible, while extraction out of the prepositional object is not allowed.

(46) Tomek wysłał [do nauczycielki od polskiego] [pracę o
Tomek.NOM sent to teacher.GEN from Polish essay.ACC about
'Lalce'].
'Lalka'
'Tomek sent to the Polish teacher an essay about the novel 'Lalka'.'

a. extraction out of indirect prepositional object

*__Od czego__$_i$ wysłał Tomek [do **nauczycielki** t_i] [pracę o
from what sent Tomek to teacher essay about
'Lalce']?
'Lalka'
Intended: 'Of what did Tomek send the teacher an essay about 'Lalka'?'

b. extraction out of direct object

O czym$_i$ wysłał Tomek [do nauczycielki od polskiego]
about what sent Tomek to teacher from Polish
[**pracę** t_i]?
essay
'About what did Tomek send the Polish teacher an essay?'

Thus, extraction phenomena support our observations as to the verb-external nature of the IO of DACs and the verb-internal nature of DOs in Polish. These observations are further supported by the licensing of distributive *po*-phrases.

Argument from distributive *po*-phrases An additional, Slavic-sensitive diagnostics, i.e. the licensing of distributive *po*-phrases, confirms the findings of the nominalisation and extraction tests for Polish. Following Babby (1980), Pesetsky (1982, 69-74) shows that Russian distributive *po*-phrases are limited to the object position of transitives or the subject position of unaccusatives (i.e. where the underlying object moves to). However, in the subject position of a transitive or unergative verb, the phrases are severely degraded. Cetnarowska (2000) argues that the same is true of Polish. Consider the Polish examples below, modelled on the relevant Russian examples (Pesetsky, 1982, 70-72, ex. 61a, 61c, 62a).

(47) a. pro Dostałem **po liście** w każdy dzień.
I.NOM received PO letter.LOC in each day

'I received a letter each day.'

b. **Po jabłku** spadło z każdego drzewa.
PO apple.LOC fell from each tree
'A (different) apple fell from each tree.'

c. ??**Po studencie** zabiło kota w każdej grupie.
PO student.LOC killed cat in each group
Intended: 'A (different) student killed a cat in each group.'

Essentially, the distribution of *po*-phrases is limited to positions that mark true arguments of the verb. The test applied to DACs shows that DOs of Polish ditransitives are verb-internal, while IOs are verb-external.

(48) a. Tomek wysłał dzieciom **po książce**.
Tomek.NOM sent children PO book.LOC
'Tomek sent the children one book each.'

b. *Tomek wysłał **po dziecku** książkę.
Tomek.NOM sent PO child.LOC book.ACC
Intended: 'Tomek sent every child a book.'

The same is true of the prepositional variant. *Po*-phrases can be licensed in the DO position, but not in the PP-argument position.

(49) a. Tomek wysłał do dzieci **po książce**.
Tomek.NOM sent to children.GEN PO book.LOC
'Tomek sent the children one book each.'

b. *Tomek wysłał **po dziecku** książkę.
Tomek.NOM sent PO child.LOC book.ACC
Intended: 'Tomek sent every child a book.'

Summing up, there are reasons to believe that in Polish, the DO of the DAC and PP variants is a true argument of the verb. We have demonstrated that based on the DO's behaviour concerning nominalisation, extraction and distributive *po*-phrases. In particular, the DO can become the complement of a nominalisation. One can extract out of the DO. One can also license distributive *po*-phrase in the DO position. In contrast, the IO of the DAC does not behave like a typical internal argument; it shows properties typical of external arguments. The IO cannot complement a nominalisation. One cannot extract out of the IO, nor can one license distributive *po*-phrases in the IO position.

Because the dative-marked IO appears to be verb-external, a question arises. Namely, is the IO in Polish a small clause subject, like the English IO? In what follows, using the same diagnostic as in Section 3.3.1 for English, i.e. *znów/znowu* 'again' modification, we show that even though the IO of DAC in Polish seems to be verb-external, it should not be analysed as a subject of a

small clause. As we show in Section 3.3.3.1, these observations can be accounted for if we take the IO to be an applicative argument, licensed by a verb-external *Appl* head, rather than a subject of a small clause.

Argument from *again*-modification The *again*-modification diagnostics applied to the Polish data indicates that, in contrast to English DOCs, Polish DACs do not project two separate clauses. This is because with DACs, the Polish adverbial *znów/znowu* 'again' lacks the restitutive meaning.[16]

(50) Jan **znowu** wysłał Ewie list.
Jan.NOM again sent Ewa.DAT letter.ACC
'Jan sent Ewa a letter again.'

a. **repetitive**: Jan sent Ewa a letter, and Jan had done it before.

b. **restitutive**: #Jan sent Ewa a letter and Ewa had had that letter before.

(51) Jan **znowu** dał Ewie książkę.
Jan.NOM again gave Ewa.DAT book.ACC
'Jan gave Ewa a book again.'

a. **repetitive**: Jan gave Ewa a book again, and Jan had done it before.

b. **restitutive**: #Jan gave Ewa a book, and Ewa had had that book before.

The lack of the restitutive meaning is true regardless of whether the verb is lexically prefixed, as in (50), or not, as in (51). This suggests that lexical prefixes added to DAC verbs, do not necessarily introduce an extra event/clause in the syntax, at least not in the examples in (50) and (51).

One could ask whether the Polish *znów/znowu* 'again' can modify a result state at all. It has been argued in the literature cross-linguistically that not all repetitive morphemes have the ability to modify different subevents of complex

[16]The same has been independently observed for the Russian DAC frame. Regardless of the object order, DAT>ACC or ACC>DAT, preverbal *opjat'* 'again' gives rise to a repetitive meaning only (Bondarenko, 2018). Consider the DAT>ACC variant below.

(i) Maša opjat' otdala Vase knigu.
Masha.NOM again gave Vasja.DAT book.ACC

a. **repetitive**: available
'Masha gave Vasja the book, and that had happened before.'

b. **restitutive**: unavailable
'Masha gave Vasja the book, and Vasja had had the book before.'

(Bondarenko, 2018, 28, ex. 5)

predicates (Alexiadou et al., 2014; Beck, 2005; Bondarenko, 2018; Lechner et al., 2015; Rapp and von Stechow, 1999, a.o.). For example, the German accomplishment verbs modified by *wieder* 'again' can give rise to both the restitutive and repetitive meaning, while accomplishments with *erneut* 'again' can only have the repetitive meaning (Beck, 2005; von Stechow, 1996). So a question that arises is whether *znów/znowu* 'again' is of the *erneut*-type in giving rise to repetitive readings only.

With causative change of state verbs, the Polish *znów/znowu* 'again' gives rise to the repetitive and restitutive meaning, and therefore it can modify result states, as in (52). Hence, *znów/znowy* 'again' is like the German *wieder* 'again' and the English *again*.

(52) Tomek **znowu** otworzył okno.
Tomek.NOM again opened window.ACC
'Tomek opened the window again.'

a. **repetitive**: Tomek opened the window, and he had done that before.

b. **restitutive**: Tomek opened the window, and the window has been open before.

All our informants rejected the restitutive meaning with DACs. However verbs of the *open*-type allowed both meanings when modified with *znów /znowu* 'again'.[17] Since *give*- and *send*-type verbs lack the restitutive meaning with *znów/znowu* 'again', the structure of these verbs has to be less complex than in the Polish *otworzyć* 'to open' or the English *send* and *give*.

Adding more context to sentences such as in (50) or (51) does not increase the availability of the restitutive meaning. Presented with various contexts with intended restitutive meaning in DACs, our informants repetitively rejected the restitutive use of *znów/znowu* 'again'. Consider (53) where *znów/znowu* 'again' is intended to modify the result state denoting Tomek's hoodie being back in his possession after the event of sending/returning/giving the hoodie back to Tomek by his trainer.

(53) Tomek wziął na siłownię swoją ulubioną bluzę z kapturem. Niestety, śpiesząc się do pracy, Tomek zostawił bluzę w szatni. ['Tomek took his favourite hoodie to the gym. Unfortunately, being in a hurry for work, he left the hoodie in the changing room.']

a. #Trenerka **znów** oddała /odesłała /dała Tomkowi bluzę.
Trainer again returned sent gave Tomek hoodie

[17] The same observation is made for the Polish *otworzyć* 'to open' in Wiland (2009). Also, Bondarenko (2018) observes the same for the Russian *opjat'* 'again' with *otkryt'* 'to open'.

'Tomek's trainer returned/sent/gave him the hoodie again.'

b. Trenerka oddała /odesłała /dała Tomkowi bluzę.
Trainer returned sent gave Tomek hoodie
'Tomek's trainer returned/sent/gave him the hoodie.'

The sentence in (53a) is semantically accurate only under the repetitive meaning, i.e. under the context where the trainer had sent *Tomek* his hoodie before. However, under the intended restitutive meaning, the sentence is semantically odd, suggesting the lack of such interpretation. The sentence in (53b), without *znów/znowu* 'again' is fine.

Moreover, it seems that the meaning of *znów/znowu* 'again' is limited to repetitive also in the prepositional variant, as in (54) for the context presented in (53) and, additionally, in (55).

(54) a. #Trenerka **znów** wysłała bluzę do Tomka.
trainer.NOM again sent hoodie.ACC to Tomek.GEN
'The trainer sent the hoodie to Tomek again.'

b. #Trenerka wysłała bluzę **znów** do Tomka.
trainer.NOM sent hoodie.ACC again to Tomek.GEN
'The trainer sent the hoodie to Tomek again.'

(55) Marek uwielbia swój zegarek i nigdy się z nim nie rozstaje. Niestety, odwiedzając rodziców, Marek zostawił swój zegarek w ich łazience. ['Tomek loves his watch and he never puts it away. Unfortunately, on visiting his parents, he left his watch in their bathroom.']

a. #Mama **znów** wysłała zegarek do Marka /Markowi.
Mother.NOM again sent watch.ACC to Marek.GEN Marek.DAT
'Marek's mother has sent the watch to him again.'

b. #Mama wysłała zegarek **znów** do Marka /Markowi.
Mother.NOM sent watch.ACC again to Marek.GEN Marek.DAT
'Marek's mother has sent the watch to him again.'

c. Mama wysłała zegarek do Marka /Markowi.
Mother.NOM sent watch.ACC to Marek.GEN Marek.DAT
'Marek's mother has sent the watch to him.'

Similarly to (53a), the sentence in (55a) is semantically accurate only under the repetitive meaning, i.e only if the mother had sent *Marek* his watch before. Thus, regardless of the word order or the verb frame, only the repetitive meaning is available with verbs of the *give*- and *send*-type in Polish.

Summing up the discussion in this section, the IO of the DAC in Polish does not show properties typical of internal arguments. The IO cannot act as a genitive-marked complement of verbal nominalisations; one cannot extract out

of the IO; neither can one license distributive *po*-phrases in the IO position. These observations indicate the IO is not an internal argument. At the same time, there is little evidence that the IO of the Polish DAC is a small clause subject, in contrast to the IO of the English DOC. We made this observation based on the lack of the restitutive meaning in *give*- or *send*-type verbs in Polish when modified by *znów/znowu* 'again'. Therefore, we conclude that the structure of the Polish DAC is simpler than that of the English DOC. Namely, Polish DACs do not project a small clause.

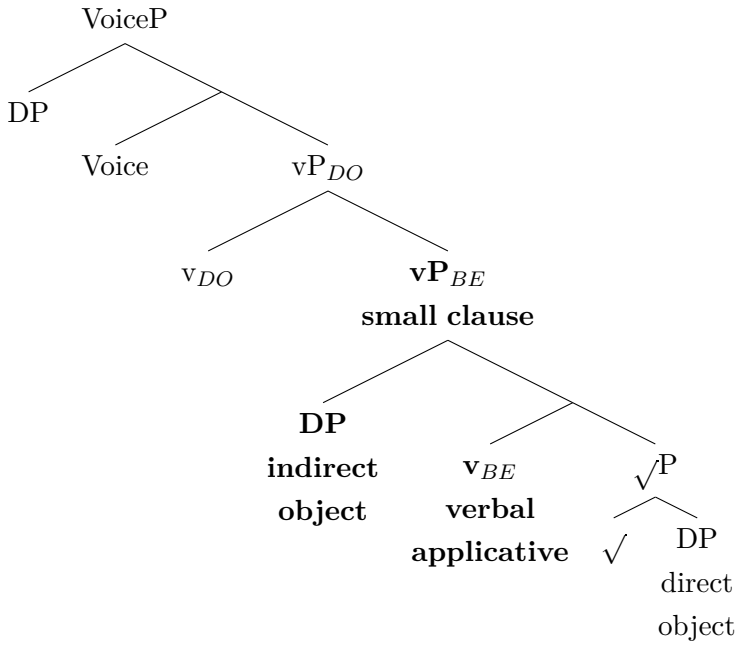
Our conclusion that Polish does not show evidence for a small clause analysis for its DACs is expected under the hypothesis as to the correlation of the existence of English-type resultatives and complex verbs in a given language (Beck and Johnson, 2004; Beck and Snyder, 2001; Snyder, 2001; von Stechow, 1995). This could, in turn, indicate that Polish also lacks Principle R, which allows to interpret Polish DACs as complex predicates. However, as we already hinted at in the example (52), some Polish ditransitive verbs have a complex structure, akin to English DOCs. Thus, while the structure of Polish DACs seems to support the hypothesis as to the parametric character of Principle R, the structure of change of state verbs provides evidence against it.

Independently, Bondarenko (2018) makes similar observations for Russian DACs. Following Beck and Johnson (2004) and using *opjat'* 'again' modification as the basic diagnostics, Bondarenko argues that ditransitives of the *give*- and *send*-type in Russian do not provide evidence for a small clause projection in their structure. This is in contrast to change of state verbs, e.g. 'open', which offer evidence for a complex structure. As Bondarenko notes, "the unavailability of a small clause structure for Russian ditransitives cannot be explained by a semantic restriction, since the Principle R or its equivalent that allows to interpret a combination of a verb and a small clause is independently required for other constructions of Russian" (Bondarenko, 2018, 46-47).

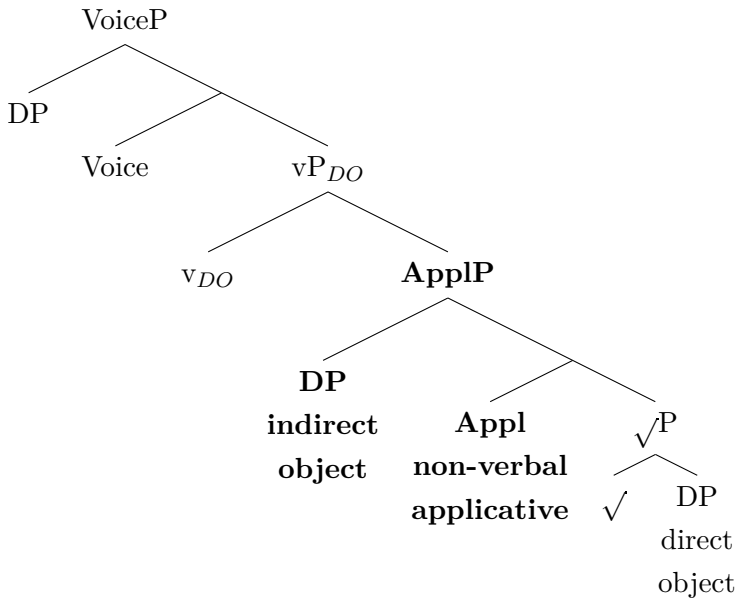
A detailed study of the availability of Principle R, allowing small clause structures, is outside of the scope of this thesis. What is crucial at this point is the following problem. If the dative-marked argument in Polish DACs is not a small clause subject, as in English, a question arises. Namely, in which position does the Polish dative IO merge? As we propose in the section to follow, we take the Polish IO to be the specifier of a low applicative head, following to some extent Pylkkänen (2002, 2008). To differentiate between low applicatives in English and Polish, we propose that English low applicatives are licensed by a verbal applicative head, which introduces the small clause, while Polish applicatives are licensed by a non-verbal applicative head. This is following our hypothesis, introduced in Section 2.3.4 of Chapter 2, as to the existence of two basic types

of applied arguments cross-linguistically, verb-internal and verb-external. Consider the proposed difference between English and Polish in structural terms, in (56).

(56) a. **Low applicative in English - verb-internal**



b. **Low applicative in Polish - verb-external**



The structural difference represented in (56) explains why English DOCs modified by *again* show two meanings, repetitive and restitutive. In English DOCs, two *vP*s are present in the structure, and the adverbial can modify either of these. In contrast, in Polish DACs with *znów/znowu* 'again', only the repetitive

meaning is available. Because Polish DACs lack the second, vP_{BE}, projection in their structure, only the vP_{DO} can be modified by *znów/znowu* 'again'. The lack of the second verbal projection in Polish is due to the verb-external nature of the applicative head. Namely, the maximal projection of the applicative head in Polish is that of *ApplP*, in contrast to the *vP* of English.

The structures in (56) depart from the structure of low applicatives proposed in Pylkkänen (2002, 2008), introduced in Chapter 2 and repeated for convenience in (58) below. In contrast to Pylkkänen (2002, 2008), we do not take the IO and DO to be co-arguments. We discuss the reasons for this departure in the section to follow. Moreover, in Chapter 5, we show that the structures proposed in (56) predict the differences in the passivisation patterns in English (American and some British varieties) and Icelandic ditransitives (which pattern with English) as opposed to Polish DACs. In English and Icelandic, the verb-internal applicative IO can be passivised. Therefore, even though the IO is taken to be a subject of a small clause, it shows verb-internal properties, i.e. it can become a passive subject. This supports the claim as to the verbal nature of the applicative head in English. In contrast, the IO in Polish is not a target of passivisation, supporting the verb-external status of the applicative head that licenses it. We return to the problem of verb-internal/external nature of applied objects in Chapter 5. For now, in the section to follow, we present some arguments supporting our departure from the structure for low applicatives of Pylkkänen (2002, 2008), and we discuss the structure of Polish DACs in more detail.

3.3.3. The structure of Polish DACs

In the discussion so far, we have established certain facts about the Polish DAC, which the analysis in this section will account for. These include the following points:

(57) **Some facts about the Polish DAC:**

a. The dative-marked indirect object is external to the verb:
   i. the IO provides an island for extraction,
   ii. the IO cannot occur as the genitive-marked argument of nominalisation,
   iii. the IO cannot be a complement of the distributive *po*-phrase.

b. The accusative-marked direct object is internal to the verb:
   i. the DO allows extraction,
   ii. the DO can act as a argument of nominalisation,

iii. the DO can be a complement of the distributive *po*-phrase.

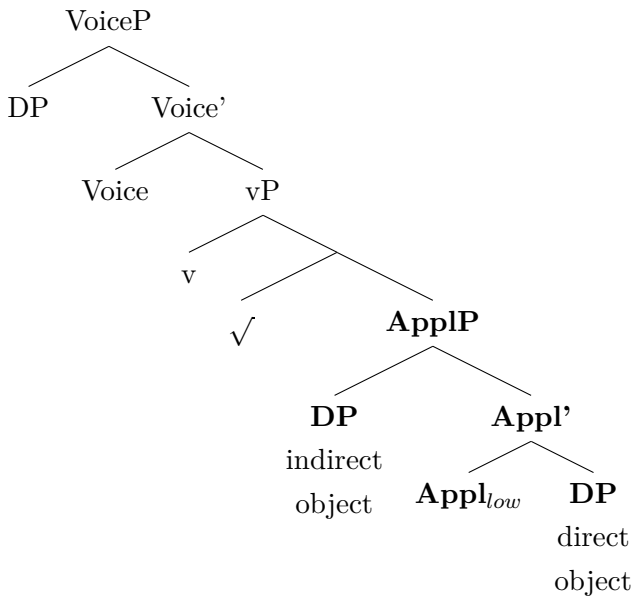
c. The structure lacks a small clause projection:

i. *znów/znowu* 'again' modification of DACs gives rise to the repetitive meaning only.

The observations listed above indicate that the small clause analysis proposed for English DOCs does not apply to the Polish DAC. At the same time, we have shown that the IO in Polish resembles the IO in English in that both seem to be licensed in a way similar to subjects. For English, as discussed in Section 3.3.1, it has been proposed that the DO of DOC is a subject of a small clause (Beck and Johnson, 2004, a.o.). Because Polish DACs do not seem to project a small clause, we propose that the verb-external character of the IO arises from it being licensed by a verb-external applicative head.

In semantic and syntactic terms, following the diagnostics proposed in Pylkkänen (2002, 2008) in this chapter as well as Chapter 2, the dative-marked argument in Polish appears to be of the low applicative type. The structure for low applicatives proposed in Pylkkänen (2002, 2008) and assumed in, e.g. Citko (2011); Cuervo (2003); Doggett (2004); Jeong (2007); Legate (2002); McGinnis (2002, a.o.) is represented in (58).

(58)



The IO is licensed by the applicative head in the [*Spec;ApplP*] position. The *ApplP* is projected in the complement of the root position, and the IO is a co-argument of the DO in the complement of the *Appl* head position. The applicative head is taken to relate the two objects to one another, encoding therefore the notion of transfer of possession, characteristic of low applicatives.

This relation between two individuals is also represented in the semantics of the low applicative of Pylkkänen's type, as in (59).

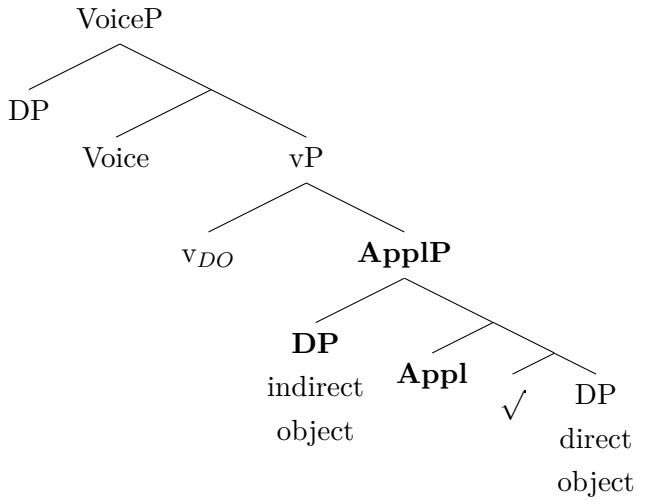
(59) a. **Low-Appl$_{TO}$ (Recipient applicative)**
λx.λy.λf$_{<e,<s,t>>}$.λe. f(e,x) & theme(e,x) & to-the-possession(x,y)

b. **Low-Appl$_{FROM}$ (Source applicative)**
λx.λy.λf$_{<e<s,t>>}$.λe. f(e,x) & theme(e,x) & from-the-possession(x,y)

(Pylkkänen, 2008, 18, ex. 15)

Note, however, that Pylkkänen's structural analysis delinks the DO from the verb. In (58), the DO is licensed by the applicative head, contrary to our observations as to the verb-internal characteristics of DOs in Polish. Moreover, the semantics of Pylkkänen's low applicatives delinks the IO from the event, which, as argued in Larson (2010) and discussed below, proves problematic. Also, as we review below, the structure of low applicatives as co-arguments with DOs faces some more general morphological and syntactic challenges. We discuss these briefly below. Then, in Section 3.3.3.1, we consider an alternative (verb-external) low applicative analysis for Polish, introduced in (60).

(60)



In (60), the IO is merged in [*Spec;ApplP*], licensed by the applicative head which is merged above the root. The DO is licensed by the root, in the complement of the root position. In contrast to the structure in (58), the two arguments are de-linked, i.e. they are not co-arguments. Instead, both arguments are related to the verb; the IO through the root and the DO through the *Appl* head. The low applicative in (60) has essentially the same semantics as the high applicative of Pylkkänen, namely (61).

(61) **Appl**
λx.λe.Appl(e, x)

(collapsing Appl_{Ben}, Appl_{Instr}, Appl_{Loc}, etc.)[18]

(Pylkkänen, 2008, 17, ex.13)

Therefore, we take it that all applicative heads, regardless of their merge site, relate the applied object to the event. The particular semantics of a given applicative is up to the meaning of the predicate to which the argument is related, and the position in which the applicative head is projected.

In what follows, we briefly introduce the problems the structure of low applicatives as in Pylkkänen (2002, 2008) faces when applied to Polish and possibly to other languages. These include challenges of syntactic, morphological and semantic nature. In Section 3.3.3.1 to follow, we propose an alternative, already hinted at in (60). We indicate how (60) solves the problems of Pylkkänen's proposal as well as how it accounts for the Polish data. In the same section, we also elaborate on (60), differentiating between free datives and selected datives, as introduced in Section 2.3.3 of Chapter 3.

Syntactic challenge. The structure proposed in (58) predicts that verbal modifiers should not intervene between the direct object and the indirect one. Nevertheless, although typically, Polish manner and frequency adverbials merge in direct proximity to verbs, as in (62a), it is also possible to merge the adverbial between the IO and the DO, as in (62b).

(62) a. Tomek **szybko** dał Kasi odpowiedź.
Tomek.NOM quickly gave Kasia.DAT answer.ACC
'Tomek quickly gave Kasia the answer.'

b. Tomek dał Kasi **szybko** odpowiedź.
Tomek.NOM gave Kasia.DAT quickly answer.ACC
'Tomek gave Kasia quickly the answer.'

In Chapter 2, we hypothesised that the applicative head in Polish is non-verbal. Therefore, we do not expect such non-verbal *Appl* modified by an adverbial to be grammatical. If true, the grammaticality of (62b) suggests that, at least in Polish, the DO and the IO cannot be licensed as co-arguments, as argued in Pylkkänen (2002, 2008).

Similar observations as to the intervening position of adverbials or adverbial quantifiers have been made, e.g. for Mandarin, Greek, German or English (Georgala, 2012; Waltraud and Whitman, 2010, a.o.). Consider the German example in (63).

[18] By assumption, the universal inventory of functional heads includes several other applicative heads, e.g. instrumental, benefactive, malefactive, etc. Whichever head occurs in a given language is a matter of selection.

(63) Der Hiwi hat den Studenten **heimlich** einen alten
the.NOM TA has the.DAT students.DAT secretly an.ACC old.ACC
Test ausgeteilt. (German)
test.ACC distributed
'The teaching assistant secretly distributed an old quiz to the students.'
(Georgala, 2012, 73, ex. 23)

If the German adverb *heimlich* 'secretly' is a *VP* modifier, (63) shows that the DO and IO in (63) cannot be co-arguments. Similarly, the Mandarin frequency adverb *sān cì* 'three times' can intervene between the IO *tāmen* 'them' and the DO *shǒubiǎo* 'watch', as in (64).

(64) Wǒ mài-gěi-le tāmen **sān cì** shǒubiǎo. (Mandarin)
1SG sell-GEI-perf 3PL 3 time watch
'I have sold them three times watches.'
(Waltraud and Whitman, 2010, 11, ex. 27a)

The fact that adverbial modifiers can merge between the DO and IO of ditransitives indicates that the two might not be projected as co-arguments. In the structure in (60), which delinks the two objects, the adverbial can attach to vP_{DO} or to the root phrase, accounting for both orders in (62a). What is more, there are some morphological reasons as to why the co-argument analysis of low applicatives, as in (58), might not be on the right track.

Morphological challenge As argued in Georgala (2012), Pylkkänen's analysis of low applicatives makes false predictions concerning the morphological realisation of the applicative suffix. This is particularly visible in languages that have overt applicative verbal affixes, i.e. those that license prototypical applicative constructions. Under Pylkkänen's analysis, low applicative heads project under the root. Therefore, in languages that lexicalise applicative heads as verbal affixes, the low applicative head is predicted to be a prefix, rather than a suffix. Such prediction is problematic because, as noted in the literature (Emonds and Whitney, 2006; Georgala, 2012, e.g.), applicative verbal affixes of all types, whether semantically low or high, are overwhelmingly suffixes, and very rarely, if at all, prefixes.

> [A]lthough high applicative heads in the expected morphological position are robustly attested cross-linguistically [i.e. there are many languages that lexicalise applicative morphemes as verbal suffixes], there are no clear candidates for a specialized overt low applicative head [of Pylkkänen's type], either in situ or as a prefix. (Georgala, 2012, 3)

There do exist cases which seem to constitute counterexamples to the observation of Georgala (2012), e.g. (65).

(65) Tam-kurpoki a-**ko**-tam-etaye (Ainu)
sword-underneath I-**APPL**-sword-draw
'I drew the sword underneath the sword.'
(Shibatani, 1990, 69, in Georgala, 2012)

However, following, e.g. Baker (1996); O'Herin (2001), Georgala argues that the applicative morphemes that appear to be prefixal (and thus merged below the root) provide contexts with incorporated material. Therefore in (65), "the prefix is not a reflex of the applicative head [as glossed in (65)], but rather an incorporated adposition" (Georgala, 2012, 14).

Support for the P-incorporation analysis of prefixal applicatives comes form examples where the applicative morpheme shows close or complete homophony with a free-standing adposition, as in, e.g. Abaza. Such examples are discussed by O'Herin (2001), who argues for an incorporation analysis of what appears to be a prefixal applicative in Abaza. Consider (66).

(66) a. **locative applicative**
d-ʕa-ħə-**dzqa**-yə-r-gəl-t' (Abaza)
A3SG.H-DIR-P1-beside-C3SG.M-CSE-stand-DYN
'He caused him/her to stand next to us.'

b. **locative postposition 'beside'**
a-ʒʲəra a-**dzqua** (Abaza)
the-smithy 3SG.N-beside
'beside the smithy'
(O'Herin, 2001, 481, ex.20; 486, ex. 51, in Georgala, 2012)

As argued in O'Herin (2001), Abaza incorporated prefixes show the same pattern of agreement as free-standing postpositions - a fact difficult to account for under any other account than that of incorporation.

Therefore, if applicative verbal affixes are predominantly lexicalised as suffixes, i.e. above the root, a projection of the low applicative head in the complement of the root position, as in Pylkkänen (2002, 2008), seems to be unlikely from a morphological perspective. In the structure in (60), the low applicative head merges above the root, and therefore it is predicted to be lexicalised as a suffix in languages that show verbal applicative morphology. This analysis is in line with the observations as to the suffixal nature of such verbal morphemes.

Semantic challenge Moreover, the structure of low applicatives and their semantics, respectively in (58) and (67) (repeated from (59) for convenience), are

also problematic in semantic terms.

(67) a. **Low-Appl$_{TO}$ (Recipient applicative)**
λx.λy.λf$_{<e,<s,t>>}$.λe. f(e,x) & theme(e,x) & to-the-possession(x,y)

b. **Low-Appl$_{FROM}$ (Source applicative)**
λx.λy.λf$_{<e<s,t>>}$.λe. f(e,x) & theme(e,x) & from-the-possession(x,y)

(Pylkkänen, 2008, 18, ex. 15)

As argued in Larson (2010), the separation of the low applicative from the verb, i.e. the lack of *e'* in *to/from-the-possession(x,y)* in (67), has an important logical consequence, which Pylkkänen does not predict. Consider the conjoined clauses in (68).

(68) a. John wrote [that letter]$_i$ and Bill gave Mary [that letter]$_i$.

b. John wrote Mary that letter.

(Larson, 2010, 702, ex. 3)

Under the standard neo-Davidsonian analysis, if *that letter* refers to the same entity in both conjuncts of (68), (68a) does not entail (68b). Consider the semantics of (68), represented in (69).

(69) a. ∃e[writing(e) & Agent(e,John) & Theme(e,that_letter)] & ∃e'[giving(e') & Agent(e',Bill) & Theme(e',that_letter) & Goal(e',Mary)]

b. ∃e[writing(e) & Agent(e,John) & Theme(e,that_letter) & Goal(e,Mary)]

(Larson, 2010, 702, ex. 4)

The lack of the entailment is a desirable result - the fact that: a) John wrote a letter, and that b) the letter came into the possession of Mary does not entail, that c) John wrote the letter to the possession of Mary. Under this analysis, "Mary is related (as Goal) to the giving event e', and not to the writing event e, and there is no way of deducing the latter from the former" (Larson, 2010, 702).

Under the analysis of Pylkkänen (2002, 2008), the interference from (68a) to (68b) is not blocked. Under Pylkkänen's semantics of low applicatives the goal/recipient is not related to the event, but to the theme. This relation, in turn, associates the goal/recipient with the event to which the theme is related. (70) illustrates the semantics of (68a) and (68b) respectively under the low applicative analysis of Pylkkänen (2002, 2008).

(70) a. ∃e[writing(e) & Agent(e,John) & Theme(e,that_letter)] & ∃e'[giving(e') & Agent(e',Bill) & Theme(e',that_letter) & to-the-possession-of(that_letter,Mary)]

b. ∃e[writing(e) & Agent(e,John) & Theme(e,that_letter) & to-the-possession-of(that_letter,Mary)]

(Larson, 2010, 702, ex. 5a-b)

As argued in Larson (2010), under the low applicative analysis, as in (70), (68a) entails (68b).[19] This is because in (70), the goal/recipient lacks *e* or *e'* in its semantics, i.e. it is separated from either of the event variables, the writing (*e*) or giving (*e'*). The goal/recipient is simply: *to-the-possession-of(that_letter, Mary)*. As a result of such semantics, the goal/recipient becomes related to the event to which the theme argument is related, i.e. to writing (*e*). Thus, the event of writing the letter is interpreted as carried out for *Mary*, contrary to the truth.

In what follows, we propose an alternative low applicative structure, introduced in (60), which links the recipient/goal back to the event. In this structure, the recipient/goal and the theme are no longer co-arguments. The theme is licensed by the root, and the recipient/goal by a low applicative head, merged above the root. Both arguments are related to the verb. Not only does the alternative in (60) solve the semantic problem, but it also solves the syntactic and morphological challenges to Pylkkänen's analysis. The structure also accounts for the Polish data.

3.3.3.1. An alternative to Pylkkänen (2002, 2008)

This section provides more details to the alternative low applicative structure introduced in (60). Moreover, in this section, we propose that there are two types of low applicatives, raising and non-raising. We show that recipient datives are arguments base-generated in [*Spec;*$\sqrt{}$*P*] and attracted to move to [*Spec;ApplP*]. Thus, recipients are arguments that are *made* into applicatives. In contrast,

[19] This is following the logical reasoning represented in (i).

(i) a. ∃e[writing(e) & Agent(e,John) & Theme(e,that_letter)] & ∃e'[giving(e') & Agent(e',Bill) & Theme(e',that_letter) & to-the-possession-of(that_letter,Mary)]

b. ∃e[writing(e) & Agent(e,John) & Theme(e,that_letter)] & ∃e'[giving(e') & Agent(e',Bill) & Theme(e',that_letter)] & to-the-possession-of(that_letter,Mary)]

c. ∃e[writing(e) & Agent(e,John) & Theme(e,that_letter)] & to-the-possession-of(that_letter,Mary) & ∃e'[giving(e') & Agent(e',Bill) & Theme(e',that_letter)]

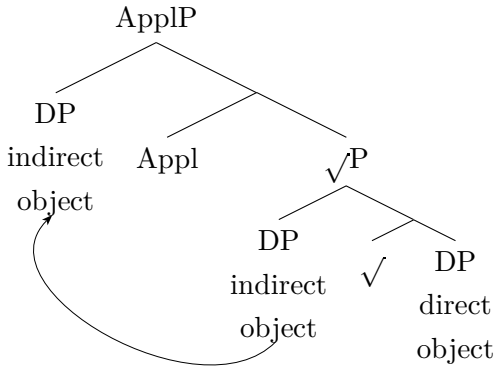
d. ∃e[writing(e) & Agent(e,John) & Theme(e,that_letter)] & to-the-possession-of(that_letter,Mary)

e. ∃e[writing(e) & Agent(e,John) & Theme(e,that_letter) & to-the-possession-of(that_letter,Mary)]

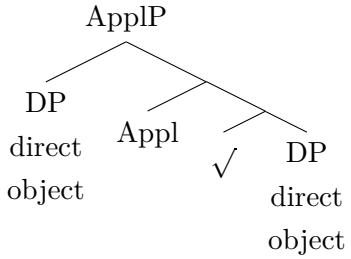
(Larson, 2010, 703-4, ex.6)

benefactive/malefactive datives are merged directly in [*Spec;ApplP*] - they are *born* as applicatives. This difference is structurally represented in (71).

(71) a. **raising applicative - recipient**



b. **non-raising applicative - benefactive/malefactive**



As we show in the discussion to follow, this structural difference accounts for the fact that recipients are arguments that are selected by the verb. In contrast, benefactives/malefactives are free arguments. We first focus on recipients as low applicatives, discussing the alternative low applicative structure in more detail. Then, we show that benefactive/malefactive datives licensed with DACs should also be analysed as low applicatives, although of a different type than the recipients. In Section 3.3.3.2, we briefly discuss some additional arguments for the structure proposed, focusing on the relative position of the IO with regard to the DO, and showing that the IO c-commands the DO.

Recipients As already indicated in (71a), we propose that recipient arguments are first-merged as part of $\sqrt{P}$ and become low applicatives on movement to [*Spec;ApplP*]. We take it that the IO and the DO are co-arguments on initial Merge. The DO merges in the complement of the root position, and the IO merges in the specifier of the root. Such proposal accounts for the fact that the verb selects for both of the arguments. This also provides an explanation as to how the notion of the transfer of possession/individual-to-individual relation is encoded syntactically once the two arguments are no longer taken to

be co-arguments of the *ApplP*, as in Pylkkänen (2002, 2008). Once merged in [*Spec;*$\sqrt{}$*P*], the IO is attracted by the *Appl* head to move to [*Spec;ApplP*]. In this position, the IO receives its θ-role and case feature.

That the IO is merged under the verbalising head v_{DO}, as in (85a), is supported by the fact that it behaves syntactically like a low applicative. For example, the recipient argument cannot antecede anaphors, nor can it license participial adjunct clauses, as illustrated in (72), respectively.

(72) a. Tomek wysłał **Ewie**$_i$ ***swoją**$_i$**/jej**$_i$ ulubioną książkę.
Tomek.NOM sent Ewa.DAT self's/her favourite book.ACC
'Tomek sent Ewa her favourite book.'

b. **PRO**$_{i/*j}$ Będąc na wakacjach, Tomek$_i$ wysłał
being on holiday, Tomek.NOM sent
Ewie$_j$ jej ulubioną książkę.
Ewa.3SG.F.DAT her favourite book.ACC
'While he/*she was on holiday, Tomek sent Ewa her favourite book.'

Such behaviour is expected of applicative arguments merged below the verbalising head v in Polish, i.e. of low applicatives. Moreover, the IO cannot license depictive secondary predicates, as in (73). This is also expected of low applicatives.

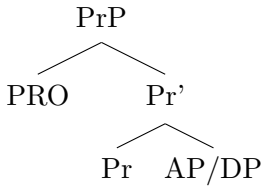
(73) Tomek$_i$ wysłał **Ewie**$_j$ jej ulubioną książkę **po pijanemu**$_{i/*j}$
Tomek.NOM sent Ewa.DAT her favourite book PO drunk.DAT
/po pijaku$_{i/*j}$.
/PO drunk.LOC
'Tomek sent Ewa her favourite book while he/*she was drunk.'

That low applicatives cannot antecede anaphors or control the PRO of participial clauses is expected from their low position in the structure. However, up until now we have not explained why low applicatives cannot be modified by depictive secondary predicates. In Chapter 2, we mentioned that, in contrast to low applicatives, high external arguments such as prototypical subjects or high applicatives can be modified by depictives. However, this contrast between high and low applicatives cannot stem from the low position of low applicatives alone. This is because internal arguments, projected even lower than IOs can be modified by secondary depictives. A question thus arises, why?

In our analysis of Polish secondary depictive predicates, we follow Szajbel-Keck (2014, 2015) who proposes that the prepositions of bipartites such as *po pijaku* 'while drunk' are relators, which den Dikken (2006) defines as general purpose connectives between predicates and their subjects. Szajbel-Keck (2014, 2015) takes such relators to merge as a π/Pr head with and adjective as its

complement and a PRO subject in the specifier position, as in (74).[20]

(74)

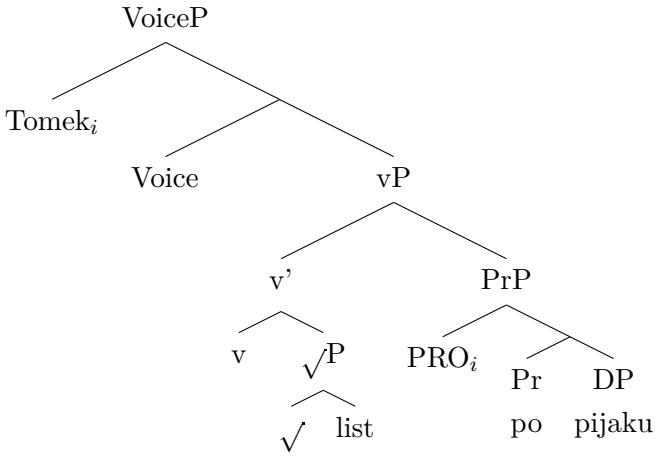


Similarly to non-finite clauses, secondary predicates allow only PRO subjects. Following Bailyn (2001), Szajbel-Keck (2014) proposes that the reference of the PRO of *PrP* is determined by the Minimal Distance Principle, in (75).

(75) **Minimal Distance Principle**
PRO is controlled by the nearest c-commanding potential antecedent.
Bailyn (2001)

In order to comply with the Minimal Distance Principle, Szajbel-Keck (2014) proposes that subject-controlled secondary predicates right-adjoin to *v'*, as in (76).

(76) Tomek$_i$ napisał list PRO$_i$ **po pijaku**.
Tomek.NOM wrote letter.ACC PO drunk.LOC
'Tomek wrote the letter drunk.'

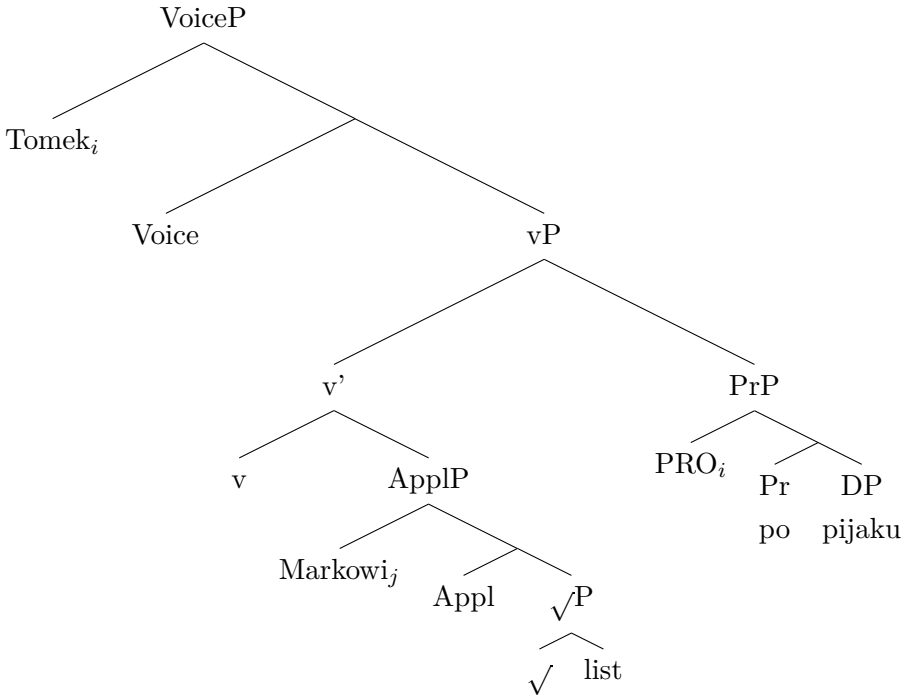


In (76), the subject *Tomek* is the closest c-commanding potential antecedent of the PRO in [*Spec;PrP*] and it becomes its controller.

In the case of low applicatives, which merge below *v*, the argument in [*Spec;ApplP*] does not c-command the PRO in [*Spec;PrP*] and therefore it cannot control it, and thus be modified by the secondary depictive predicate in [*PrP*]. Consider (77).

[20] In Szajbel-Keck (2014), the relator is taken to merge as the π head. In Szajbel-Keck (2015), the relator merges as a *Pr* head. In what follows, we stick to *Pr* as the label.

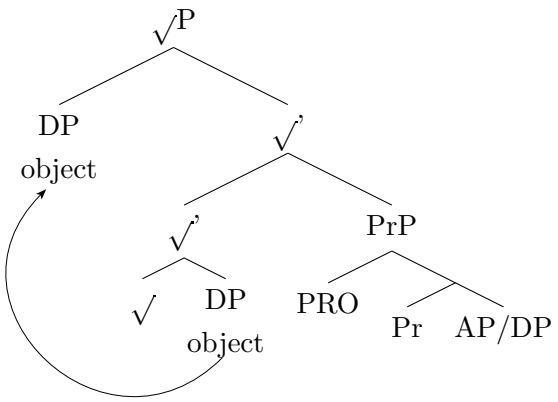
(77) Tomek$_i$ napisał Markowi$_j$ list PRO$_{i/*j}$ **po pijaku**.
Tomek.NOM wrote Marek.DAT letter.ACC PO drunk.LOC
'Tomek wrote Marek a letter drunk.'



Following the Minimal Distance Principle, in (75), the dative-marked low applicative in (77) cannot control the PRO of *PrP*, as it does not c-command it. Therefore, low applicatives cannot be modified by secondary depictive predicates. This is in contrast to high applicatives, which merge above *v*, and therefore can act as *PrP*'s PRO controllers.

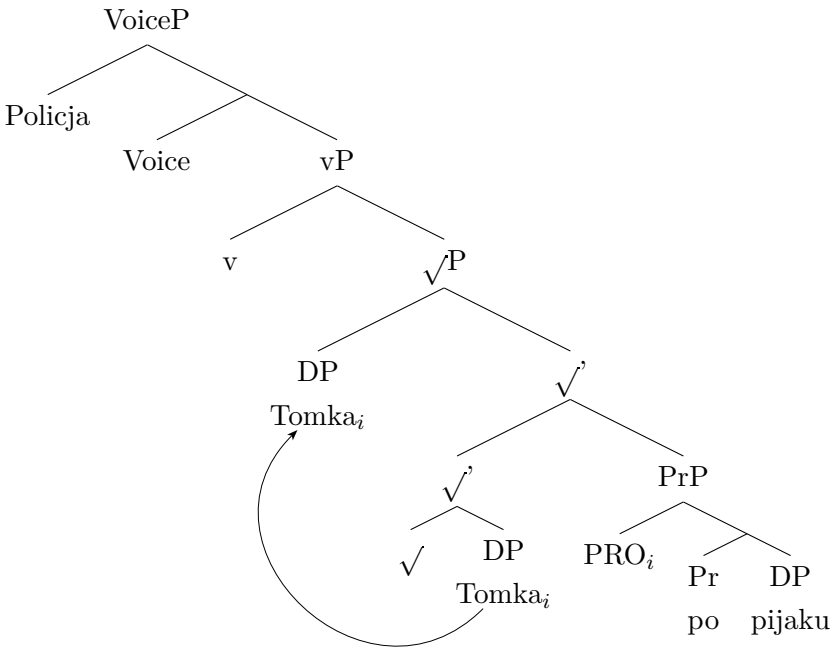
A question still remains - why do internal arguments allow modification by secondary depictive predicates? Following Szajbel-Keck (2015), we take it that object-controlled depictive secondary predicates in Polish merge right-adjoined to the root (*V'* in Szajbel-Keck's architecture), as in (78).

(78)



The DO moves to [*Spec;*$\sqrt{}$*P*] from which position it can control the PRO of *PrP*. For more details as to the syntactic configuration of object- vs. subject-controlled depictive secondary predicates, we refer the reader to Szajbel-Keck (2015). Below, we illustrate object-controlled depictives with a full sentence.

(79) Policja zatrzymała Tomka$_i$ PRO$_i$ **po pijaku**.
police.NOM stopped Tomek.ACC PRO PO drunk.LOC
'Police stopped Tomek drunk.'



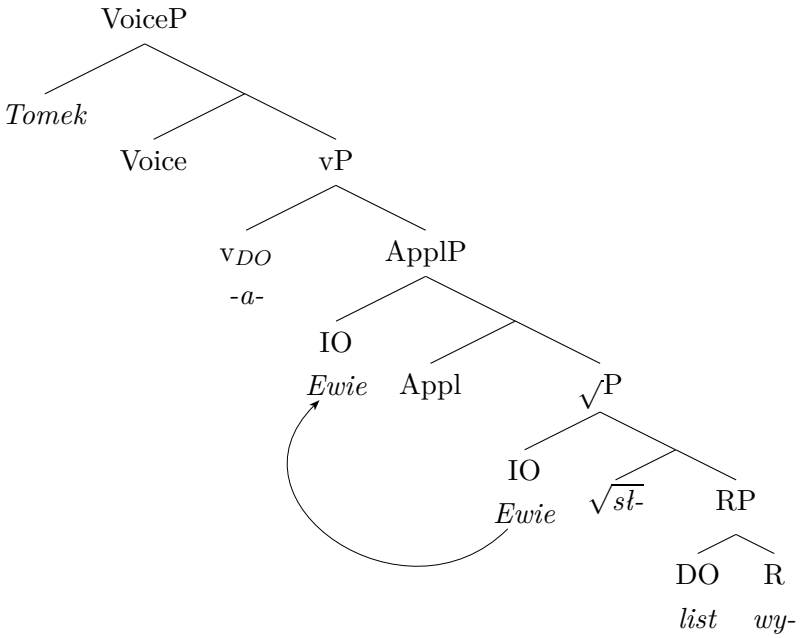
In the configuration in (74), even if a higher c-commanding dative in [*Spec;ApplP*] is present in the structure, it is the DO that is the closest possible c-commanding antecedent for the PRO in [*Spec;PrP*].

Summing up, following the analysis of Szajbel-Keck (2014, 2015), we take it that object-controlled secondary predicates attach to $\sqrt{}$' and subject-/high applicative-controlled secondary predicates attach to *v'*. Neither of these positions allow low applicatives to become the closest possible c-commanding antecedent for the PRO of *PrP*. Therefore, low applicatives cannot be modified by depictive secondary predicates.

Coming back to the structure of Polish DACs and the position in which low applicative arguments merge, consider a more elaborate structure of a low applicative in a DAC context is presented in (80b).

(80) a. Tomek wysłał Ewie list.
Tomek.NOM sent Ewa.DAT letter.ACC
'Tomek sent a letter to Ewa.'

b.



In the structure in (80b), following e.g. Ramchand (2004); Romanova (2006) and to some extent Svenonius (2004), the prefix *wy-* is lexicalised as the *R* head. The *RP* projection is merged as the complement of the root, which licenses the IO in its specifier position. The dative-marked IO is taken to be base-generated as part of the root phrase, in [*Spec;*$\sqrt{}$*P*], and later moved to [*Spec;ApplP*]. This accounts for the fact that the IO is selected by the verb, which we demonstrate in (85) below. At the same time, as we have already demonstrated in Section 3.3.2, that the IO does not constitute an internal argument. We suggest that the recipient argument does not act like an internal argument, because its θ and case features are valued by a verb-external *Appl* head, which attracts the IO to move to [*Spec;ApplP*].

The movement analysis of applicative arguments is not a standard proposal within the theory of applicatives, although not a novel one. Similar accounts have independently been proposed for languages such as English, Greek, German or Mandarin in, e.g. Georgala (2012); Georgala et al. (2008); Waltraud and Whitman (2010).[21] In her analysis of applicatives cross-linguistically, Georgala (2012) argues that the two types of applicatives proposed in Pylkkänen (2002, 2008) are projected in the same position, namely between *V* and *v*. The difference between the two is that low applicatives are projected within *VP* and raise to *ApplP*, while high applicatives are projected directly in *ApplP*. This is illustrated in (81).

[21] The raising applicative hypothesis has been initially proposed in Georgala et al. (2008) under the name of *expletive applicatives* to be later renamed as *raising applicatives*, following a suggestion of Julie Legate.

(81) a. **high applicative - thematic applicative**
$[_{v'}$ v $[_{ApplP}$ **IO**$_{BNF/LOC/INSTR...}$ $[_{Appl'}$ Appl $[_{VP}$ V DO]]]]

b. **low applicative - raising applicative**
$[_{v'}$ v $[_{ApplP}$ **IO**$_{REC}$ $[_{Appl'}$ Appl $[_{VP}$ **t**$_i$ $[_{V'}$ V DO]]]]]

(Georgala, 2012, 7, ex. 13-14)

Low applicatives are taken to be *raising applicatives* and high applicatives to be *thematic* ones. Thematic applicatives introduce an additional argument above the lexical *VP*, as in (81a). Raising applicatives function as case-licensing heads, attracting, the IO from its base-generated position to [*Spec;ApplP*], as in (81b).

In Georgala's account, the movement of the IO from *VP* to *ApplP* is motivated by the EPP-feature, which is uncoupled from Agree. In contrast, we assume that the movement from [*Spec;*$\sqrt{}$*P*] to [*Spec;ApplP*] in Polish is motivated by the unvalued [Case:___] and [θ:___] features of the IO, and therefore no EPP is required in order to trigger movement.[22] The IO's case and θ features valuation are represented in (82).[23]

(82) Tomek wysłał Ewie list.
Tomek.NOM sent Ewa.DAT letter.ACC
'Tomek sent a letter to Kasia.'

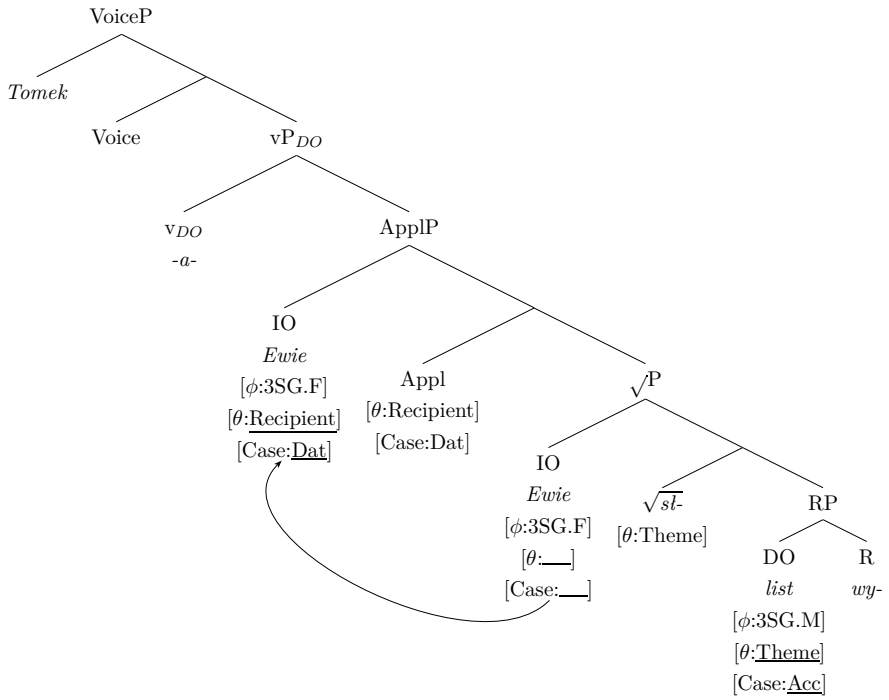
[22]This is not to say that applicative heads are never associated with the EPP-feature. As we propose in Chapter 5, applicative heads that are verb-internal, i.e. those whose maximal projection is that of *vP*, are marked with the EPP-feature, as expected under the phase theory (Chomsky, 1999, 2000, 2001, a.o.). In contrast, verb-external applicatives, of the maximal projection *ApplP*, as those in Polish DACs, are not associated with the EPP-feature.

[23]Note that in (82) as well as in other tree representations, we use a notation where the element on the left stands for an attribute and the element to the right for the attribute's value. Empty underline indicates an unvalued feature of a Goal, an underlined feature indicates a feature of a Goal that has been valued under Agree. Moreover, a feature that has not been underlined represents a feature inherently associated with a given Probe. Consider some examples below:

(i) a. [Case:___] - unvalued Case feature, e.g. on a Goal *DP*

b. [Case:Nom] - valued Case feature, e.g. on a Probe *T*

c. [Case:Nom] - nominative Case feature valued under Agree, e.g. on a Goal *DP*, valued under Agree with a Probe *T*



The DO receives its [θ:Theme]-feature from the root. At this point, we abstract away form the question as to how the structural accusative case is valued, whether by *Voice*, v_{DO}, the root, or a case valuation algorithm of sorts. We return briefly to the matter at the end of Chapter 4. Crucially for the current discussion, we assume that the root cannot value the case of the IO in [*Spec;*$\sqrt{P}$]. Thus, attracted by the interpretable features of the *Appl* head, the IO moves up to [*Spec;ApplP*]. In this position, the IO receives [Case:Dative] and [θ:Recipient].

That the IO is first-merged as part of the root is indicated by the fact that even when the recipient of the DAC is not overtly realised, as in (83), its participation in a given context is implied.

(83) a. Tomek wysłał **(Ewie)** list.
Tomek sent Ewa.DAT letter
'Tomek sent Ewa a letter.'

b. Tomek dał **(Ewie)** prezent.
Tomek gave Ewa.DAT gift
'Tomek gave Ewa a gift.'

In Chapter 2, following Bosse (2015); Hole (2008, 2012), we showed that entailment patterns indicate whether a given argument is free or subcategorised for. Following the syntactico-semantic deletion test for free datives (Hole, 2008), repeated from Chapter 2 in (84), we take recipients to be arguments that are subcategorised for.

(84) **Syntactico-semantic deletion test for free datives**
A dative argument D not dependent on a preposition is *free* in a simple positive declarative sentence S of German [and, as we proposed in Chapter 2, of Polish] **iff**
(i) S without D is grammatical;
(ii) S without D does not entail that there is an individual
(α) which participates in the event described by S and
(β) which could be encoded as a dative argument.
(Hole, 2012, 216, author's own emphasis)

Consider (85) and (86), both illustrating recipients as arguments that are subcategorised for by the verb.

(85) a. Tomek wysłał Ewie /do Ewy list.
Tomek.NOM sent Ewa.DAT /to Ewa.GEN letter.ACC
'Tomek sent (to) Ewa a letter.'

b. Tomek wysłał list.
Tomek.NOM sent letter.ACC
'Tomek sent a letter.'

c. (85b) **entails** 'There is someone who was sent the letter.' /'There is some place to which the letter was sent.'

(86) a. Tomek dał Ewie prezent.
Tomek.NOM gave Ewa.DAT gift.ACC
'Tomek gave Ewa a gift.'

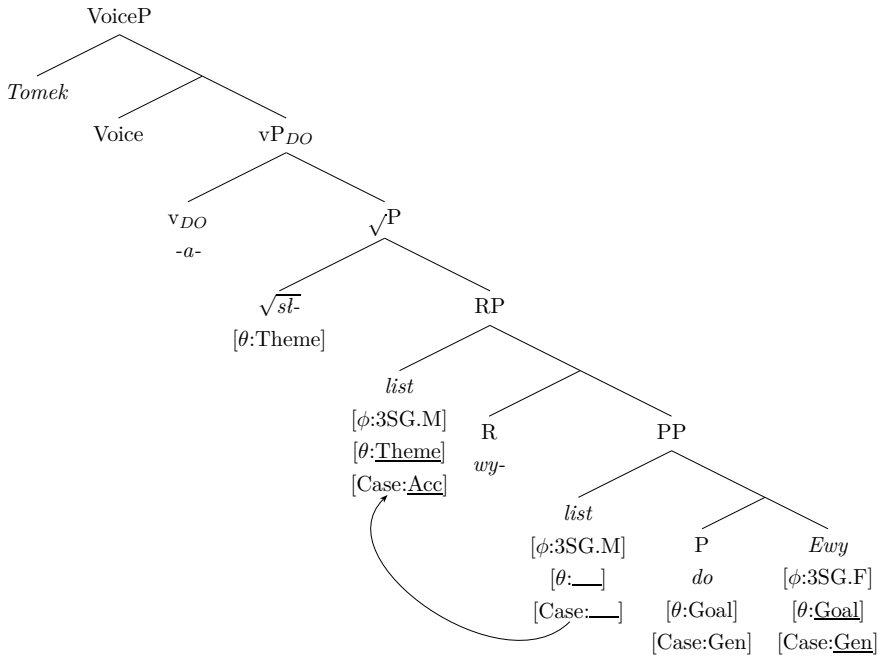
b. Tomek dał prezent.
Tomek.NOM gave gift.ACC
'Tomek gave a gift.'

c. (86b) **entails** 'There was someone who was given a gift.'

Note additionally that (85) shows that both the recipient and the goal, depending on the variant, are subcategorised, as both are implied.

Concerning the prepositional variant of Polish ditransitives, we propose the structure represented in (87).

(87) Tomek wysłał list do Ewy.
Tomek.NOM sent letter.ACC to Ewa.GEN
'Tomek sent a letter to Ewa.'



The θ and case features of the goal/ground argument are valued by the P head. The theme/figure argument is initially projected as the subject of the result location PP, then it moves to [*Spec;RP*] where it receives [θ:Theme] from $\sqrt{}$. Both the theme and the goal are subcategorised for.

Benefactives/malefactives In contrast to recipients, discussed above, benefactives/malefactives merge directly in the [*Spec;ApplP*] position. These arguments are free, i.e. not subcategorised for. In contrast to recipients, when not phonologically realised, benefactives/malefactives are not implied, as illustrated in (88).

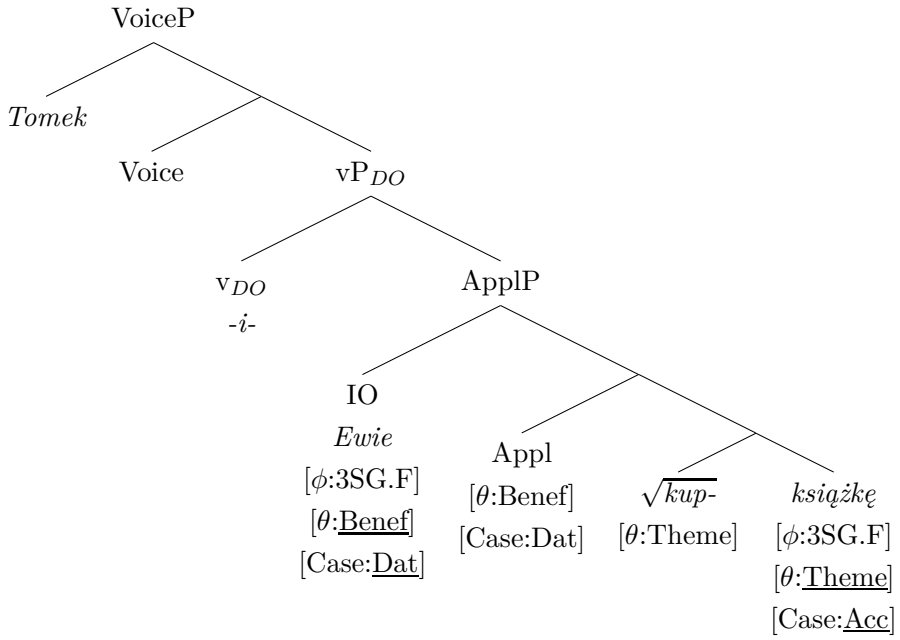
(88) a. Tomek kupił **Ewie** książkę.
Tomek.NOM bought Ewa.DAT book.ACC
'Tomek bought Ewa a book.'

b. Tomek kupił książkę.
Tomek.NOM bought book.ACC
'Tomek bought a book.'

c. (88b) **does not entail** 'There was someone who was bought a book.'

To differentiate between recipients and benefactives, we take it that benefactives are not introduced to the structure by the root. Rather, benefactives are licensed by the applicative head. Thus, in contrast to recipients that are *made* applicatives, i.e. they become applicative on movement to [*Spec;ApplP*], benefactives are *born* as applicatives; they are projected directly in [*Spec;ApplP*]. This is illustrated in (89).

(89) Tomek kupił **Ewie** książkę.
Tomek.NOM bought Ewa.DAT book.ACC
'Tomek bought Ewa a book.'



In contrast to recipients, the benefactive argument is merged directly as part of the applicative phrase. In [*Spec;ApplP*], the *Appl* head values the benefactive's θ and case features.

We take Polish benefactives/malefactives to be low applicatives. Typically, benefactive applicatives are analysed as high applicatives (Cuervo, 2003; Marantz, 1993; Pylkkänen, 2002, 2008, e.g.). However, the applicative diagnostics proposed for Polish in Chapter 2 clearly indicate that in terms of their syntactic behaviour, Polish benefactives behave on a par with recipients. Namely, as illustrated in (90), benefactives/malefactives cannot antecede anaphors, license participial adjunct clauses, or license depictive secondary predicates.

(90) a. Tomek ugotował żonie$_i$ ***swoją$_i$/jej$_i$** ulubioną zupę.
Tomek.NOM cooked wife.DAT self's/her favourite soup.ACC
'Tomek cooked his wife her favourite soup.'

b. **PRO**$_{i/*j}$ Będąc w pracy, Tomek$_i$ ugotował **żonie**$_j$ jej
being in work, Tomek.NOM cooked wife.DAT her
ulubioną zupę.
favourite soup
'Tomek cooked his wife her favourite soup, while he/*she was at work.'

c. Tomek$_i$ ugotował **żonie**$_j$ zupę **po pijanemu**$_{i/*j}$ **/po**
Tomek.NOM cooked wife.DAT soup.ACC PO drunk.DAT /PO

pijaku$_{i/*j}$.
drunk.LOC
'Tomek cooked his wife a soup while he/*she was drunk.'

Based on this syntactic behaviour, we suggest that recipients and benefactives occupy the same applicative position in Polish, i.e. low. The difference between the two is that the recipient applicative moves to [*Spec;ApplP*], while the benefactive applicative is projected directly in [*Spec;ApplP*].

3.3.3.2. The low applicative IO c-commands the DO

In the analysis of Polish DACs outlined in the previous section, we proposed that the dative-marked IO c-commands the accusative DO. In the following, we briefly present the arguments discussed in the literature supporting this assumption. Some of these arguments, particularly weak crossover, additionally indicate that the IO>DO word order is canonical in Polish, while the DO>IO is a result of scrambling. We abstract away from the question as to which of the object orders is basic, if any.[24] Instead, we focus on the observation that: a) thematic hierarchies, b) pronominal variable binding, c) weak crossover effects, d) pronominal clitics order, and e) the structure of idioms suggest that the IO c-commands the DO, support the analysis presented in the previous section. In the following, we briefly discuss each of the observations.

Thematic hierarchies Researchers working on the structure of verbs licensing two objects seem to agree that benefactives, recipients and/or goals should c-command the position of the theme object (Chomsky, 1995; Collins, 1997; Hale and Keyser, 1993; Larson, 1988, 1990; McGinnis, 2004; Ura, 2000, a.o.). This analysis is in line with research on thematic hierarchies. While such hierarchies tend to differ depending on the analysis, they typically agree that recipient/goal/benefactive should be placed higher on the hierarchy than the theme (Bresnan and Kanerva, 1989; Givón, 1984; Grimshaw, 1990; Jackendoff, 1972, a.o.).[25] Such theta hierarchies translated into structural terms typically

[24] The basic word order in Polish has been under discussion. For example, Dornisch (1998) claims that the basic order in Polish is that of DO preceding IO, ACC>DAT, (as also argued in Bailyn 1995, 2010 for Russian). There are, however, also accounts that argue otherwise (Citko, 2011; Wiland, 2009; Willim, 1989; Witkoś, 1998, 2007, a.o.), i.e. DAT>ACC (as also argued in Dyakonova 2007, 2009 for Russian and in Kučerová 2007 for Czech). Some, e.g. Tajsner (1998) indicate that the order of the two objects is in fact free.

[25] Some thematic hierarchies, however, assume just the opposite, where the benefactor/recipient/goal is ranked below the theme/patient (Baker, 1989; Jackendoff, 1990; Larson, 1988; Speas, 1990, a.o.)

correspond to a higher projection of the argument marked with a more prominent theta role. Thus, the benefactive/recipient/goal being more prominent than the theme, it is taken to be the argument that c-commands the theme.

Pronominal and variable binding Moreover, pronominal and variable binding phenomena indicate that the indirect object c-commands the direct one.

(91) a. Jan pokazał **Marii**$_i$ **jej**$_i$ szefową.
Jan.NOM showed Maria.DAT her boss.ACC
'Tomek showed Maria her boss.'

b. *Jan pokazał **jej**$_i$ szefowej **Marię**$_i$.
Jan.NOM showed her boss.DAT Maria.ACC
Intended: 'Jan showed Maria to her boss.'

(Citko, 2011, 121, ex. 42)

(92) a. Jan dał **każdemu**$_i$ właścicielowi **jego**$_i$ czek.
Jan.NOM gave every.DAT owner.DAT his.ACC check.ACC
'Jan gave every owner his check'

b. *Jan dał **jego**$_i$ właścicielowi **każdy**$_i$ czek.
Jan.NOM gave his.DAT owner.DAT every.ACC check.ACC
Intended: 'Jan gave its owner every check'

(Citko, 2011, 121, ex. 43)

In (91a) and (92a), the indirect object is a licit antecedent of the possessive pronoun *jej/jego* 'her'/'his' modifying the direct object. Thus, the IO must c-command the DO. Moreover, if the IO does indeed c-command the DO, we should expect Anticataphora effects, which stem from the Principle C violation (Nikolaeva, 2014, e.g.). This is the case, as shown in (91b) and (92b).[26]

[26]However, one has to be careful with the binding diagnostics, as movement of the DO, being of the A-type, predicts that the scrambled DO should be able to bind the other object from the position it moved to. This, as Witkoś (2007) argues, is indeed the case. Based on e.g. thematic hierarchies, the order of pronominal clitics and the structure of idioms in Polish, Witkoś takes the DAT>ACC order to be canonical. However, he also argues that scrambling of the accusative object amounts to A-movement, which therefore extends the binding domain of the DO$_{.ACC}$, as in (i).

(i) a. Piotr pokazał **każdemu studentowi**$_i$ **jego**$_i$ nowego
Piotr.NOM showed.3SG.M.PST. every student.DAT his new
wykładowcę.
lecturer.ACC.
'Piotr showed every student to his new lecturer.'

b. Piotr pokazał **każdego wkładowcę**$_i$ **jego**$_i$ nowym studentom.
Piotr.NOM showed every lecturer.ACC his new students.DAT.
'Piotr showed every lecturer to his new students.'

(Witkoś, 2007, 458-9, ex. 7)

Weak crossover effects The c-commanding nature of the IO with regard to the DO can be further supported by weak crossover effects, which additionally indicate that it is the IO>DO object order that is canonical in Polish. As pointed out in e.g. Citko (2011), only the IO>DO word order yields the right crossover configuration. Consider (93).

(93) a. Któremu **pracownikowi**$_i$ wysłałaś $\boldsymbol{t}_i$ **jego**$_i$ czek?
which.DAT employee.DAT sent his cheque.ACC
'Which employee did you send his check?'

b. ??**Czyj**$_i$ czek wysłałaś **jego**$_i$ właścicielowi $\boldsymbol{t}_i$?
whose cheque.ACC sent his owner.DAT
'Whose check did you send to its owner?'

(Citko, 2011, 122, ex. 46)

The example in (93a) is correctly predicted to be grammatical as the moved IO, *któremu pracownikowi* 'which employee', does not cross the coindexed DO. In the example (93b), however, we see a context where the moved element, *czyj czek* 'whose cheque', crosses a coindexed possessive pronoun. This context is predicted to be ungrammatical/severely degraded as it raises weak crossover effects. The examples in (93) suggest that the DAT>ACC object order is basic. Should the ACC>DAT order be canonical, we would expect results opposite to those shown in (93).

Pronominal clitics order Another argument for the c-commanding nature of the IO with regard to the DO, and possibly for the basic nature of the IO>DO object order in Polish comes from the order of weak (clitic) pronouns (Willim, 1989; Witkoś, 1998, 2007). In contexts with weak pronouns, it is the indirect object pronoun that precedes the direct object pronoun, not the other way round, as in (94).

(94) a. Jan **mu** **go** oddał przed miesiącem.
Jan him.DAT him.ACC returned before month
'Jan returned him/it to him a month ago.'

b. ??Jan **go** **mu** oddał przed miesiącem.
Jan him.ACC him.DAT returned before month
'Jan returend it/him to him a month ago.'

(Witkoś, 2007, 460, ex. 11)

The structure of idiomatic phrases Moreover, the structure of idiomatic phrases in Polish also seems to point towards the fact that the IO c-commands the DO. Also, it might additionally indicate that the IO>DO object order is basic (Witkoś, 2007). Dziemianko and Witkoś (2005) analysed a sample of 130

tokens, which involved Polish idioms and fixed expressions of two types, those that involve: a) two objects, dative and accusative, and those licensing b) one object, accusative, and a PP. They found out that in such structures, the core of the idiom includes exclusively the accusative-marked object. The subject and dative arguments remain variable.[27]

(95) a. **dać radę**
give advice.ACC
'give advice'

b. ktoś dał komuś radę
somebody.NOM gave someone.DAT advice.ACC
'somebody gave someone advice'

(96) a. **oddać przysługę**
give favour.ACC
'do a favour'

b. ktoś oddał komuś przysługę
somebody gave someone.DAT favour.ACC
'somebody did someone a favour'

(97) a. **pokazać figę**
show fig.ACC
'take somebody in'

b. ktoś pokazał komuś figę
somebody.NOM showed somebody.DAT fig.ACC
'somebody took somebody in'

(Witkoś, 2007, 461, ex.18)

Therefore, it seems that in syntactic terms the core idioms, illustrated in the examples above in (a), form a constituent. The subject and the IO seem to be external to the structure formed by the core idiom.

Summing up, there have been various observations made in the literature as to the c-commanding position of the IO with regard to the DO. These include: a) thematic hierarchies, b) pronominal and variable binding, c) weak crossover effects, d) pronominal clitics order, and e) the structure of idiomatic phrases. These observations are reflected in our analysis of recipient as well as benefactive/malefactive low applicatives, which are taken to be projected higher than the theme, and in a position that c-commands the theme.

[27] Note that the observations as to the structure of ditransitive idiomatic expressions in Polish is expected on the analysis of DACs (and their prepositional variant) proposed in this chapter.

3.4. Conclusions

In this chapter, we compared the Polish dative-accusative construction to its English double object equivalent. **Firstly**, we showed that both English and Polish show the so-called dative alternation, where the indirect object of a DOC/DAC can alternate with a prepositional argument. However, the two languages differ in the number of predicates that allow such alternation. Namely, in English, the dative alternation appears to be more productive. Nevertheless, this higher productivity is only apparent as English is a language that developed two ways of lexicalising recipients - a DP one and a PP one. In contrast, Polish consistently lexicalises recipients as nominal arguments and goals as PP arguments. This difference between English and Polish could be due to the language's different grammatical systems. Old English did not show any dative alternation, and the recipient argument could be lexicalised as a nominal argument only. With the development of a more rigid word order and a less complex morphological system, the *to* variant of the recipient lexicalisation emerged. Polish, with its scrambling nature and highly complex morphology, resembles thus Old English, allowing recipients to be lexicalised as nominal arguments only. Whenever the IO alternates with the PP argument of the PP variant, a change from the recipient theta role to the goal occurs.

Secondly, we showed that English DOCs had been analysed in the literature to project a small clause. Three main reasons for this bi-clausal analysis of English DOCs have been indicated, the syntactic behaviour of the IO with regard to: a) nominalisation, b) extraction, and the ambiguity of DOCs with regard to c) *again*-modification. We demonstrated that the same diagnostics applied to Polish indicate that Polish DACs differ structurally from English DOCs. Crucially, the IO of the Polish DAC cannot be taken to be a small clause subject, as proposed for the English IO. In Polish, the modification of DACs with *znów/znowy* 'again' does not give rise to the ambiguity found in English. In Polish DACs with *znów/znowu* 'again', only the repetitive meaning is available. Based on this observation, we proposed that the IO of Polish DACs cannot be a small clause subject.

Thirdly, having rejected the small clause analysis for Polish DACs, we turned to an alternative proposal - the applicative account. Based on the applicative diagnostics introduced in the previous chapter, we argued that recipient and benefactive arguments in Polish are of the low applicative type. However, noting certain syntactic, morphological and semantic challenges of the structure of low applicatives as initially proposed in Pylkkänen (2002), we proposed a slight modification of Pylkkänen's analysis. Decomposing the verb into a category-

neutral root and a verbalising head *v*, we proposed that low applicatives in Polish (and possibly in other languages) are licensed by the applicative head projected between the root and *v*. Thus, we delinked the IO from the DO, and proposed that the DO is licensed by the root, while the IO is licensed by the *Appl* head. Delinking the IO from the DO, i.e. rejecting the low applicative account of Pylkkänen (2002, 2008), we accounted for the verb-internal nature of the DO of Polish DACs and the verb-external nature of the IO. Moreover, we managed to solve the syntactic, morphological and semantic problems of the low applicative analysis of Pylkkänen.

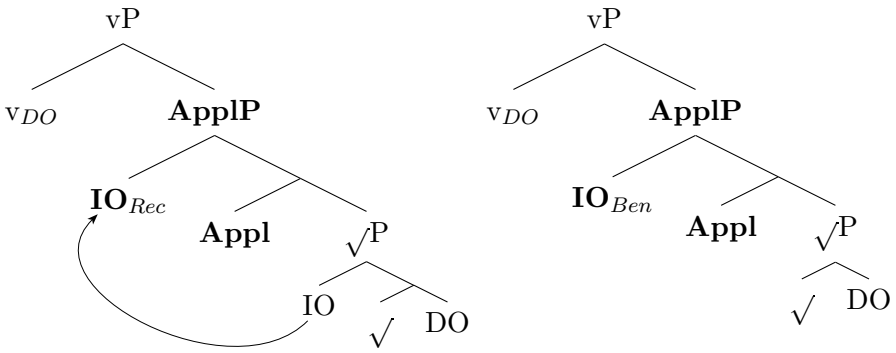
Fourthly, we noticed that recipients and benefactives differ in nature. Recipients were shown to be core participants of the event, while benefactives were demonstrated to be free arguments. In order to account for these differences, we proposed that recipients are first-merged as specifiers of the root and, motivated by the need to value their case and θ-features, they move to [*Spec;AppP*]. In contrast, benefactives were argued to merge directly in [*Spec;AppP*]. Thus, while recipients are applicatives that are *made* into applicatives, benefactives are *born* as applicatives.

In the chapter to follow, we discuss Polish high applicatives. We illustrate high applicatives with dative-marked experiencers. We show that high applicatives differ from low applicatives, discussed in this chapter, in that they can act as anaphor antecedents and they can license adjunctive participial clauses, making them akin to subjects. However, we also argue that high applicatives differ from subjects, hence the two should be analysed as projected in two different positions. We propose that experiencers do not merge in [*Spec;vP/VoiceP*], but in the specifier position of a high *Appl* head.

4. High Applicatives

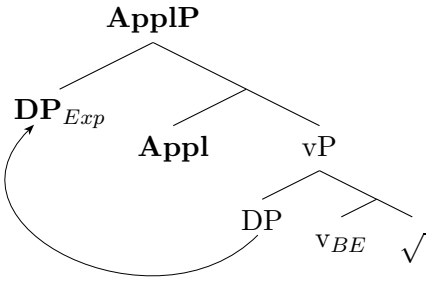
Chapter 3 focused on ditransitive contexts and bene/malefactives. We argued that the indirect object (IO) of the Polish dative-accusative construction (DAC) is a **low applicative**. In structural terms, this means the IO is projected between v and the root, as illustrated in (1).

(1) **low applicatives**
raising (recipient) and non-raising (benefactive)



In this chapter, we show that datives in Polish can also merge above the categorising head v, as **high applicatives**. This is illustrated in (2).

(2) **high applicative**[1]



[1]In this chapter, we abstract away from a discussion on types of high applicatives, focusing on Exp$_{DAT}$s taken to be raising applicatives. However, it seems that the attenuative dative *sobie*, illustrated in (5), (Malicka-Kleparska, 2012) can be analysed as a non-raising high applicative, merged directly in [*Spec;ApplP*]. Thus, similarly to low applicatives, high applicatives can be further divided into those raising and non-raising. We leave a more detailed analysis of non-raising high applicatives for further research.

Such high projection of the dative makes it subject-like. This is especially visible when a prototypical, agentive subject is missing, as in the case of psychological predicates, which are the focus of this chapter. The subject-like properties of high datives are reflected in the three diagnostics differentiating low applicatives from high applicatives introduced in Chapter 2. Namely, in contrast to low applicatives but similarly to subjects, high applicatives can: a) act as anaphor antecedents, b) license participial adjunctive clauses, and they can also c) license depictive secondary predicates. We demonstrate this in more detail in Section 4.1.1.

We illustrate Polish high applicatives in this chapter with **dative-marked experiencers** (Exp_{DAT}) of the experiencer-theme (Exp-Th) construction, as in (3).[2,3]

(3) a. **Tomkowi** spodobała się Ewa.
Tomek.M.DAT appealed.3SG.F REFL Ewa.F.NOM
'Ewa appealed to Tomek.'

b. Ewa spodobała się **Tomkowi**.
Ewa.NOM appealed.3SG.F REFL Tomek.DAT
'Ewa appealed to Tomek.'

As represented in (3), the arguments of the Exp-Th construction can alternate with regard to which of them is projected in the preverbal position. In the discussion to follow, we focus on the Exp-verb-Th order, in (3a). However, in Section 4.2.2, we briefly comment on the structural differences between the two orders.

Experiencers are not the only examples of high applicatives in Polish. Datives of the so-called *dative reflexive construction* (DRC), in (4), can also be analysed as high applicatives (e.g. Rivero, 2003; Rivero et al., 2010; Willim, 2018).

[2]Following others in the literature, e.g. Belletti and Rizzi (1988); Grimshaw (1990); Miechowicz-Mathiasen and Scheffler (2008); Tajsner (2008), we refer to the argument c-commanded by the experiencer as 'theme'. This is in contrast to e.g. Bondaruk (2018); Bondaruk and Rozwadowska (2019); Jiménez-Fernández and Rozwadowska (2016) who call the same argument in Polish a 'stimulus'. In this study, which focuses predominantly on the relative position of the Exp_{DAT} with regard to the other argument, we abstract away from the discussion as to the accuracy of the label for the non-dative argument's theta role, i.e. 'theme', 'stimulus', 'subject matter', or others. Crucially, regardless of the discrepancies in the label choices, our 'theme' refers to the same argument, as the 'stimulus/subject matter' of the other accounts.

[3]Whenever the case of the Exp or Th arguments is irrelevant for the discussion, we will use the 'Exp', 'Th' or 'Exp-Th' label. Whenever the case is relevant, we will add extra subscripts to the label, as in Exp_{DAT} vs. Exp_{ACC}, 'Th_{NOM}' vs. 'Th_{nonNOM}',or Exp_{DAT}-Th vs. Exp_{ACC}-Th.

(4) **Ewie** dobrze się czytało tę książkę.
Ewa.F.DAT well REFL read.3SG.N this.F.ACC book.F.ACC
'This book read well to Ewa.'

Likewise, Malicka-Kleparska (2012) shows arguments for a high applicative analysis of the the dative *sobie* 'self' in (5), which she refers to as the *attenuative dative*.

(5) Ewa **sobie** biega.
Ewa.F.NOM self.DAT run
'Ewa is running (and enjoying it)'.

For space reasons, we abstract away from the Polish DRC, referring the reader to other analyses, e.g. Ackerman and Moore (2001); Citko (2011); Dąbrowska (1997); Dziwirek (1994); Frąckowiak (2015); Frąckowiak and Rivero (2008, 2011); Gogłoza (2017a); Jabłońska (2007); Kibort (2004); Krzek (2013); Rivero (2003); Rivero et al. (2010); Rivero and Sheppard (2003); Wierzbicka (1988); Willim (2018). For an applicative analysis of the attenuative *sobie*, we refer the reader to Malicka-Kleparska (2012). In what follows, we focus our discussion solely on Exp_{DAT}s.

We concentrate on Exp_{DAT}s, as their syntactic position is far from being settled. Some take Exp_{DAT}s to be merged in [*Spec;VP*], typically of an unaccusative predicate. Some take Exp_{DAT}s to be in [*Spec;vP*]. We argue that an alternative analysis is possible, namely that Exp_{DAT}s are merged in [*Spec;ApplP*]. We discuss the problem of the merge position of Exp_{DAT}s in **Section 4.1.1**. In **Section 4.1.2**, we provide arguments for an unaccusative analysis of the Exp-Th predicate. In **Section 4.2**, we propose that the Exp_{DAT} is merged in the [*Spec;ApplP*] position, as a high applicative.

4.1. Psychological verbs

In their seminal work on psychological verbs based on Italian data, Belletti and Rizzi (1988) propose a tripartite classification of psychological predicates, illustrated with English examples in (6).

(6) **Three classes of psychological verbs** (Belletti and Rizzi, 1988)

a. **Class I: *temere***
John loves Mary.

b. **Class II: *preocupare***
The show amused Bill.

c. **Class III: *piacere***
The idea appealed to Julie.

The Polish examples of the sentences in (6) are presented in (7). In (7), we also list the typical cases associated with the arguments of the three classes of psychological predicates in languages that overtly mark cases.

(7) a. **Class I: Experiencer**$_{Nominative}$ **- Theme**$_{Accusative}$

Tomek kocha Marię.
Tomek.NOM loves.3SG Maria.ACC
'Tomek loves Maria.'

b. **Class II: Theme**$_{Nominative}$ **- Experiencer**$_{Accusative}$

Przedstawienie rozbawiło Karolinę.
show.NOM amused.3SG.N Karolina.ACC
'The show amused Karolina.'

c. **Class III: Theme**$_{Nominative}$ **- Experiencer**$_{Dative}$

Ten pomysł spodobał się Julii.
this idea.NOM appealed.3SG.M REFL Julia.DAT
'This idea appealed to Julia.'

Class I verbs are often categorised as **subject experiencer (SE) verbs** and Class II and III as **object experiencer (OE) verbs**. In what follows, we abstract away from Class I and Class II, focusing only on Class III, i.e. on OE verbs with dative Exps.

In Polish (Bondaruk and Rozwadowska, 2018; Gogłoza and Łęska, 2018; Gogłoza et al., to appear b, a.o.), and some other Slavic languages, e.g. Russian (e.g. Germain, 2017), Exp$_{DAT}$ OE verbs are often divided into verbal predicates and non-verbal predicates. The two types are illustrated respectively in (8) and (9).

(8) **verbal psychological predicates**

a. Ewie **spodobał** **się** nowy nauczyciel.
Ewa.F.DAT appealed.3SG.M.PST REFL new teacher.M.NOM
'The new teacher appealed to Ewa.'

b. Tomkowi **znudziła** **się** matematyka.
Tomkowi.M.DAT bored.3SG.M.PST REFL mathematics.F.NOM
'Ewa got bored with mathematics.'

c. Szefowi **zaimponowała** nowa sekretarka.
manager.M.DAT impressed.3SG.F.PST new secretary.F.NOM
'The manager got impressed with the new secretary.'

(9) **non-verbal psychological predicates**

a. Ewie było **żal** chorej koleżanki.
Ewa.F.DAT was.3SG.N.PST sorrow ill friend.F.GEN
'Ewa felt sorry for her ill friend.'

b. Tomkowi było **szkoda** młodszej siostry.
Tomek.M.DAT was.3SG.N.PST pity younger sister.F.GEN
'Tomek felt pity for his younger sister.'

Verbal psychological predicates, as in (8), select a nominative-marked theme (Th_{NOM}), with which the verb agrees in its ϕ-features. In contrast, non-verbal predicates, in (9), select a non-nominative-marked theme (Th_{nonNOM}), as in (9). Because Polish verbs agree only with nominative-marked arguments, the Th_{nonNOM} (marked with genitive) of the non-verbal psychological predicate does not establish an *Agree* relation with the verb. Instead, the copula (optional in the present tense) receives the default - 3^{rd} person, singular, neuter - features. In what follows, we focus particularly on the verbal predicates. However, wherever it is crucial for the discussion, we will also comment on the non-verbal predicates.

4.1.1. The problem of Exps' merge position

The nature of the Exp_{DAT} of psychological predicates in Polish is a matter of discussion. Particularly, the question arises as to the merge position of the Exp_{DAT} and, related to that, the subject vs. object nature of Exp_{DAT}s. In Chapter 3, we showed that extraction phenomena and licensing of distributive *po*-phrases can indicate whether a given object is merged verb-internally or verb-externally. These diagnostics applied to Exp-Ths suggest that the **Exp_{DAT} is merged verb-externally** while the **Th argument is verb-internal**.

As shown in (10b), one cannot subextract out of the Exp_{DAT}. In contrast, extracting out of the Th argument position, as in (11b), is possible.

(10) a. Jan nie podoba się **żadnej z tych dziewczyn**.
Jan.NOM not likes REFL any of these girls
'Jan does not appeal to any of these girls.'

b. ***Z tych dziewczyn**, Jan nie podoba się żadnej.
of these girls, Jan not appeals REFL to.any
Intended: 'Of these girls, Jan does not appeal to any.'

(Miechowicz-Mathiasen and Scheffler, 2008, ex. i-ii, footnote 15)

(11) a. Janowi podoba się **tylko jedna z tych dziewczyn**.
Jan.DAT likes REFL only one.NOM of these girls
'Jan likes only one of these girls.'

b. **Z tych dziewczyn /z nich**, Janowi podoba się **tylko jedna**.
of these girls /of them Jan.DAT likes REFL only one
'Of these girls, John likes only one.'

(Miechowicz-Mathiasen and Scheffler, 2008, ex. 18)

The acceptability of the extraction out of the Th_{NOM} indicates that Th_{NOM} is an internal argument of the verb. This is in contrast to the Exp_{DAT} position, which does not allow extraction and thus appears verb-external.

Similarly, distributive *po*-phrases can be licensed only in the Th position, as in (12a), but they cannot be licensed in the position of the Exp_{DAT}, as in (12b).

(12) a. Tomkowi spodobało się tylko **po odcinku z każdej**
Tomek.DAT appealed REFL only PO episode from each
serii (serialu).
series of.tv.series
'Only one episode of each of the TV series appealed to Tomek.'

b. *Pierwszy odcinek serii spodobał się tylko **po dziecku**
first episode of.series appealed REFL only PO child
z każdej rodziny.
from each family
Intended: 'The first episode of the TV series appealed only to one child from each family.'

Just like with the extraction test, the licensing of *po*-phrases indicates that the Th argument is projected as a complement of $V/\sqrt{}$, while the Exp is projected verb-externally.

However, a question remains. Which verb-external position do Exp_{DAT}s occupy? The merge position of Polish Exp_{DAT}s has long been a matter of discussion. As indicated in Gogłoza and Łęska (2018), the analyses of Polish Exp_{DAT}s can be divided into those that: a) propose a **low projection** of Exp_{DAT}s, typically [*Spec;VP*], taking the Exp_{DAT} to be more like an object, and b) those that argue for a **high projection** of the Exp_{DAT}, typically [*Spec;vP*], arguing for a subject-like status of the dative argument.

The high projection analysis is put forward, e.g. in Miechowicz-Mathiasen (2005) who argues that Exp_{DAT}s are 'quirky subjects', base-generated in [*Spec;vP*] and moved to [*Spec;TP*]. In Bondaruk and Szymanek (2007), it is shown that Exp_{DAT}s are far from being (prototypical) subjects, nevertheless a high projection for Exp_{DAT}s is proposed - even though base-generated in [*Spec;VP*], the Exp_{DAT} is taken to move to the outer [*Spec;TP*] position. A similar analysis is proposed in Tajsner (2008). Exp_{DAT}s have also been proposed to be merged in [*Spec;vP*] but to lack the movement to [*Spec;TP*] (Bondaruk, 2017, 2018; Bondaruk and Rozwadowska, 2018; Gogłoza et al., to appear b; Witkoś et al., 2018a, a.o.). All these analyses take Exp_{DAT}s to be subjects or to be subject-like.

On the other hand, there also exist accounts that argue for a low projection of Exp$_{DAT}$s, and thus a more object-like nature of the experiencer. Although in Miechowicz-Mathiasen (2005), Exp$_{DAT}$s are shown to be subjects, in Miechowicz-Mathiasen and Scheffler (2008), the opposite is argued. Psychological predicates are taken to be double object unaccusatives, and the Exp$_{DAT}$ is argued to be more like a dative-marked indirect object, rather than a subject. A similar account is proposed in Jiménez-Fernández and Rozwadowska (2016), where the dative is taken to merge in [*Spec;VP*] and to move to [*Spec;CP*]. The same is also proposed in Gogłoza and Łęska (2018), although in Gogłoza et al. (2018, to appear b) the authors show evidence against their initial analysis and for the [*Spec;vP*] position as Exp$_{DAT}$'s base position.

As shown in Gogłoza and Łęska (2018); Gogłoza et al. (to appear b) one of the main arguments for the low vs. high position of the Exp$_{DAT}$ put forward in the literature is the Exp$_{DAT}$'s **(in)ability to antecede anaphors**. Those that take the Exp$_{DAT}$ to be projected in [*Spec;vP*] indicate that it can antecede anaphors, as in (13a). In contrast, those that argue that the Exp$_{DAT}$ is projected in [*Spec;VP*] show that the Exp$_{DAT}$ cannot act as the antecedent for an anaphor, as in (13b).

(13) a. ***Swój** chatakter pisma nie podoba mi się.
self's character handwriting not appeal me REFL
Intended: 'I do not like my handwriting.'
(Żychliński, 2013, 123, ex. 248b)

b. Mi się **swój** głos podoba.
me REFL self's voic please
'I like my voice.'
(Miechowicz-Mathiasen and Scheffler, 2008, 19)

Motivated by these varying grammaticality judgements with regard to the binding potential of Exp$_{DAT}$s in Polish, Gogłoza and Łęska (2018) conducted an experiment in order to see whether the Exp$_{DAT}$ of *podobać się* 'to appeal' is accepted as a binder of anaphors. The results suggest that Exp$_{DAT}$ can bind pronouns only. Thus, the example in (13b), which Miechowicz-Mathiasen and Scheffler found on the Internet, is an isolated use of the dative as a an anaphor antecedent and it does not reflect the general tendency among native speakers. Based on the results of the experiment and following the movement theory of binding (Nikolaeva, 2014; Witkoś et al., 2018a, a.o.) which takes anaphor antecedents to be projected high and pronoun antecedents to be projected low, Gogłoza and Łęska (2018) conclude that Exp$_{DAT}$s must be projected low, i.e. in [*Spec;VP*].

However, a follow-up study in Gogłoza et al. (to appear b) on binding by

Exp$_{DAT}$s examined the Anaphor Agreement Effect (AAE), in (14), as a potential independent factor negatively affecting anaphor binding by Exp$_{DAT}$s in structures where the Exp$_{DAT}$ antecedes an anaphor which occurs in a nominative-marked position.

(14) **Anaphor Agreement Effect**: anaphors do not occur in syntactic positions construed with agreement

(Rizzi, 1990, 26)

The results of these two experiments suggest that, in general, Exp$_{ADT}$s can antecede anaphors, as long as the anaphor is not marked with nominative case. Anaphor binding in Polish is blocked when the anaphor occurs in a verb-agreeing, i.e. nominative, position due to the AAE. Similar observations as to the effect of the AAE on binding by Exp$_{DAT}$s have also been made in, e.g. Bondaruk (2017); Bondaruk and Rozwadowska (2018); Bondaruk et al. (2017a). The effect of the AAE is illustrated in (15).

(15) a. **Tomkowi**$_i$ podoba się ***swoja**$_i$ /**jego**$_i$
Tomek.DAT appeal.3SG REFL self's.NOM /his.GEN
żona.
wife.3SG.F.NOM
'His wife appeals to Tomek.'

b. **Tomkowi**$_i$ było żal **swojej**$_i$ /**jego**$_i$
Tomek.DAT was.3SG.N.PST sorrow self's.GEN /his.GEN
żony.
wife.3SG.F.GEN
'Tomek felt pity for his wife.'

For a more detailed analysis (although different from the one presented in this thesis, as assuming the Larsonian VP shell), and a consideration of the speaker variation in these contexts, we refer the reader to Gogłoza and Łęska (2018); Gogłoza et al. (to appear b). However, what is crucial for the discussion in this chapter is the fact that the two experiments show that **Exp$_{DAT}$s can bind anaphors**. This, in turn, indicates that Polish Exp$_{DAT}$s are projected high. We take this position to be that of a high applicative.

As high applicatives, Exp$_{DAT}$s are not only able to antecede anaphors; **Exp$_{DAT}$s** can also **license adjunct participial clauses**.

(16) a. [**PRO**$_{i/*j}$ Zobaczywszy jak pro$_j$ fantastycznie tańczy], **Ewie**$_i$
having.seen how (he) amazingly danced, Ewa.DAT
spodobał się Marek$_j$.
appealed REFL Marek.NOM
'Having noticed what a great dancer Marek is, Ewa became fond of him.'

b. [**PRO**$_{i/*j}$ Zobaczywszy jego ranę], **Ewie**$_i$ zrobiło się
having.seen his wound, Ewa.DAT became REFL
żal Marka$_j$.
sorrow Marek.GEN.
'Having noticed Marek's wound, Ewa started feeling sorry for him.'

The PRO of the adjunct clause is co-indexed with Exp$_{DAT}$, both of the verbal Exp-Th predicate, in (16a), and the non-verbal one, in (16b). This shows that the Exp$_{DAT}$ can control the participial clause, which indicates that the Exp$_{DAT}$ is projected high. This is in contrast to dative indirect objects, discussed in Chapter 3, which cannot control participial clauses, and which we analysed as external arguments of the low applicative type.

The third diagnostics which we used to differentiate between low and high applicatives was secondary predicate licensing. In contrast to low applicatives discussed in Chapter 3, Exp$_{DAT}$s can be modified by secondary predicates, e.g. *po pijanemu*/*po pijaku* 'while drunk'.

(17) a. **Markowi**$_i$ spodobała się Ewa$_j$ **po pijanemu**$_{i/j}$ /**po**
Marek.DAT appealed REFL Ewa.DAT PO drunk.DAT /PO
pijaku$_{i/j}$.
drunk.LOC
'Ewa appealed to Marek while he/she was drunk.'

b. **Tomkowi**$_i$ zrobiło się żal Ewy$_j$ **po pijanemu**$_{i/j}$
Tomek.DAT became REFL sorrow Ewa.DAT PO drunk.DAT
/**po pijaku**$_{i/j}$.
/PO drunk.LOC
'Tomek started feeling sorry for Ewa while he/she was drunk.'

Recall, however, from Chapter 3, that modification by depictive secondary predicates such as *po pijanemu* 'while drunk' is not limited to external (subject or applicative) arguments. Depictive secondary predicates can also be controlled by true internal arguments, as in (18).

(18) a. Tom ate the meat$_i$ **raw**$_i$. (English)

b. Tomek zjadł mięso$_i$ **na surowo**$_i$. (Polish)
Tomek ate meat on raw
'Tomek eat the meat raw.'

c. Tomek$_i$ widział Marka$_i$ **po pijanemu**$_{i/j}$ /**po pijaku**$_{i/j}$.
Tomek.NOM saw Marek.ACC PO drunk.DAT /PO drunk.LOC
'Tomek$_i$ saw Marek$_j$ while he$_{i/j}$ was drunk.'

At the beginning of this section, on the basis of extraction phenomena and distributive *po*-phrases licensing, we have demonstrated that the Th of Exp-Ths is a true internal argument of the verb. Thus, as indicated by the indices

in (17), in fact either of the arguments in (17) can be modified by *po pijanemu* 'while drunk', not only the Exp$_{DAT}$.[4] Therefore in order to unambiguously demonstrate which of the arguments of Exp-Ths is a high applicative with regard to the secondary predication test, the test must be supported by the extraction and distributive *po*-phrases licensing diagnostics. Assuming Polish applicatives are verb-external, as discussed in more detail in Chapter 2, only the Exp$_{DAT}$ can be taken to be a high applicative, not the Th.

To sum up the discussion so far, based on extraction phenomena and the licensing of distributive *po*-phrases, we have shown that the Exp argument of Exp-Ths is verb-external and the Th is verb-internal. Moreover, with the use of the three applicative diagnostics proposed in this thesis - binding, licensing of participial clauses and secondary depictive licensing - we have demonstrated that Exp$_{DAT}$s are high applicatives. Nevertheless, it should be noted that the properties of high applicatives indicated - i.e. the ability to antecede anaphors and the ability to license participial clauses and secondary depictives - are properties characteristics of subjects.[5] Thus, a question arises. Could it be that

[4] Gogłoza (2013) examined 6 logically possible word orders, consisting of the verbal predicate, two arguments (experiencer and theme) and *po pijanemu* 'while drunk', asking native speakers who was drunk in a given sentence, based on the word order. The data collected showed that either of the arguments of Exp-Ths can be modified by the depictive secondary predicate. A preference for a given DP modification was reported whenever that DP directly preceded the secondary predicate. The sentences in (i) illustrated the findings.

(i) a. Po pijanemu$_{i/j}$ Tomek$_i$ nie spodobał się Kasi$_i$.
PO drunk.DAT Tomek.NOM not appealed REFL Kasia.DAT
'Tomek did not appeal to Kasia while he/she was drunk.'

b. Po pijanemu$_{i/j}$ Kasi$_i$ nie spodobał się Tomek$_j$.
PO drunk.DAT Kasia.DAT not appealed REFL Tomek.NOM
'Tomek did not appeal to Kasia while he/she was drunk.'

c. Tomek$_i$ po pijanemu$_{i/*j}$ nie spodobał się Kasi$_j$.
Tomek.NOM PO drunk.DAT not appealed REFL Kasia.NOM
'Tomek did not appeal to Kasia while he was drunk.'

d. Kasi$_i$ po pijanemu$_{i/?j}$ nie spodobał się Tomek$_j$.
Kasia.DAT PO drunk.DAT not appealed REFL Tomek.NOM
'Tomek did not appeal to Kasia while she/?he was drunk.'

e. Tomek$_i$ nie spodobał się Kasi$_j$ po pijanemu$_{i/*j}$.
Tomek.NOM not appeal REFL Kasia.DAT PO drunk.DAT
'Tomek did not appeal to Kasia while he was drunk.'

f. Kasi$_i$ nie spodobał się Tomek$_j$ po pijanemu$_{*i/j}$.
Kasia.DAT not appeal REFL Tomek.NOM PO drunk.DAT
'Tomek did not appeal to Kasia while he was drunk.'

[5] In the literature, we can find various tests for identifying subjects in Polish. These include, e.g.: a) verb agreement, b) subject ellipsis under coordination, c) *co*-relative clauses and resumption, d) reflexive binding, e) control into adjunct clauses, f) control of *po pijanemu*

Exp$_{DAT}$s, taken here to be high applicatives, are in fact true subjects?

As argued in Bondaruk and Rozwadowska (2018), Polish **Exp$_{DAT}$s cannot be taken to be true subjects**. The authors propose four subjecthood diagnostics to test for the subject vs. object status of Polish Exp$_{DAT}$s: a) raising, b) control, c) resumptive pronouns, and d) binding. The authors argue that only the binding test indicates that Exp$_{DAT}$s are projected somewhere high in the structure. All other tests show evidence against treating Exp$_{DAT}$s as true subjects. The authors show that Exp$_{DAT}$s cannot raise, cannot control PRO or license resumptive pronouns in *co*-relative clauses[6], all taken to be indicative of subjecthood, and illustrated respectively in (19).

(19) a. *Markowi wydawało się podobać obrazy
Marek.DAT seemed REFL to.appeal paintings.NOM
Picassa.
Picasso.GEN
Intended: 'Marek seemed to like Picasso's paintings.'

b. *Marek chce [PRO podobać się muzyka
Marek.NOM wants to.appeal REFL music.NOM
klasyczna].
classical.NOM
Intended: 'Marek wants to like classical music.'

c. Ten człowiek, co *(mu) się podoba jazz, to mój
this man.NOM what him.DAT REFL appeals jazz.NOM COP my

'while drunk', g) raising, h) non-emphatic pronoun drop (e.g. Bondaruk and Rozwadowska, 2018; Bondaruk and Szymanek, 2007; Citko et al., 2018; Dyła, 1981; Dziwirek, 1994; Gogłoza, 2013).. Crucially, these tests include all the diagnostics which we proposed to differentiate between low and high applicatives, namely: a) anaphor binding, b) depictive secondary predication, and c) control into participial adjunct clauses.

[6]The standard relative pronoun in Polish is *który$_{.m.nom}$/która$_{.f.nom}$/które$_{.n.nom}$* 'which' (masculine, feminine and neuter forms, respectively). However, in colloquial speech, this form is often replaced with the indeclinable interrogative pronoun *co* 'what'. *Co*-relative clauses often require resumptive pronouns, while *który/a/e*-relatives never license them. Crucially, as observed in Dyła (1981), the resumptive pronoun is required only when it is the object of the main clause that is relativised. When the subject of the main clause is relativised, the resumptive in the *co*-relative is in fact blocked. This is illustrated in (i).

(i) Maria dała książkę Ewie.
Maria.NOM gave book.ACC Ewa.DAT.
'Maria gave the book to Ewa.'

a. Ta Maria, co **(*ona)** dała książkę Ewie, jest fajna.
this Maria.NOM what she.NOM gave book Ewa.DAT is cool.
'This Maria, who gave Ewa the book, is cool.'

b. Ta Ewa, co ***(jej)** Maria dała książkę, jest fajna.
this Ewa.NOM what her.DAT Maria.NOM gave book is cool.
'This Ewa, who gave Maria a book, is cool.'

sąsiad.
neighbour.NOM
'This man, who likes jazz, is my neighbour.'
(Bondaruk and Rozwadowska, 2018, 2-3, ex.5a, 10, 13)

We agree with Bondaruk and Rozwadowska (2018) that Exp$_{DAT}$s do not seem to be licit PRO controllers or do not show subject-to-subject raising. However, it appears to us that the resumptive licensing diagnostic is case-dependent, and therefore not indicative of a non-subject nature of the Exp$_{DAT}$. In Exp-Ths, even though the Th$_{NOM}$ is the internal argument (as demonstrated earlier in this section and also proposed in Bondaruk and Rozwadowska, 2018; Gogłoza and Łęska, 2018; Jiménez-Fernández and Rozwadowska, 2016; Miechowicz-Mathiasen and Scheffler, 2008, a.o), it is the Th$_{NOM}$ that passes the resumptive licensing test. The Exp$_{DAT}$, instead, patterns with objects. Consider (20).

(20) Kasi podoba się ta sukienka.
Kasia.DAT appeals REFL this dress.NOM
'This dress appeals to Kasia.'

a. Kasia, co ***(jej)** się podoba ta sukienka, jest fajna.
Kasia.NOM, CO her.DAT REFL appeals this dress.NOM, is cool
'Kasia, to whom this dress appeals, is cool.'

b. Ta sukienka, co **(*ona)** się podoba Kasi, jest fajna.
this dress.NOM, CO she.NOM REFL appeal Kasia.DAT, is cool
'This dress, which appeals to Kasia, is cool.'

The Th$_{NOM}$ appears to be the subject with regard to this test, regardless of its position, whether preverbal, most possibly [*Spec;TP*], as in (20b), or base-generated, as in (21):

(21) Ta sukienka, co Kasi się podoba **(*ona)**, jest fajna.
this dress.NOM, CO Kasia.DAT REFL appeal she.NOM, is cool
'This dress, which Kasia likes, is cool.'

Thus, we take the resumptive licensing diagnostics to be nominative case-dependent, and therefore not reliable for non-nominative arguments.[7]

[7]Note also that when we apply the same diagnostics to the non-verbal Exp-Th, as in (i), the Th$_{nonNOM}$ requires a resumptive pronoun.

(i) Kasi było żal Tomka.
Kasia.DAT was.3SG.N.PST sorrow Ewa.GEN.
'Kasia felt sorrowful for Ewa.'

a. Kasia, co ***(jej)** żal Tomka, jest fajna.
Kasia.NOM, CO her.DAT sorrow Tomek.GEN, is cool.
'Kasia, who feels sorry for Tomek, is cool.'

Nevertheless, even if resumptive pronoun licensing is not a reliable subjecthood test, we agree with Bondaruk and Rozwadowska (2018) in that raising and PRO control indicate that Exp$_{DAT}$s are not true subjects. In order to account for these observations, Bondaruk and Rozwadowska (2018) argue that Exp$_{DAT}$s cannot be taken to move to [*Spec;TP*]. At the same time, because Exp$_{DAT}$s can antecede anaphors, as we demonstrated earlier in the discussion, the authors take Exp$_{DAT}$s to be base-generated in [*Spec;vP*], where prototypical subjects are. This is following accounts such as Nikolaeva (2014) for Russian or Witkoś et al. (2018a) for Polish, which take arguments in [*Spec;vP*] to be licit anaphor binders. Similar analyses of Exp$_{DAT}$s have also been proposed in e.g. Gogłoza et al. (to appear b); Miechowicz-Mathiasen (2005); Witkoś et al. (2018a).

However, taking Exp$_{DAT}$s to be projected in [*Spec;vP*] has serious consequences. Namely, if the structure projects [*Spec;vP*], it cannot be of the unaccusative type, as proposed, e.g. by Gogłoza and Łęska (2018); Jiménez-Fernández and Rozwadowska (2016); Miechowicz-Mathiasen and Scheffler (2008). Under the traditional analysis of Class III psychological verbs (Belletti and Rizzi, 1988), a non-unaccusative analysis of *piacere*-type verbs is unexpected. Thus, in what follows we explore further the problem of the position in which Exp$_{DAT}$s are base-generated. Having established in this section that Exp$_{DAT}$s are projected high (i.e. above *v*), in the section to follow, we ask whether they are in [*Spec;vP/VoiceP*][8] or rather [*Spec;ApplP*]. By providing evidence for the unaccusative analysis of Exp-Ths in Polish and thus the lack of the [*Spec;vP/VoiceP*] projection in Exp-Ths, we reject the [*Spec;vP/VoiceP*] hypothesis and take

b. Tomek, co ***(go)** żal Kasi, jest fajny.
Tomek.NOM, CO is him.GEN Kasia.DAT sorrow, is cool.
'Tomek, who Kasia feels sorry for, is cool.'

Assuming the Th argument of both verbal and non-verbal predicates of Exp-Ths is projected in the same position, namely as an internal argument, the different behaviour must be due to the difference in case marking, not a difference in grammatical function.

[8] In the discussion to follow, we will use '[*Spec;vP/VoiceP*]' when referring to the position which licenses prototypical external arguments. Under our architecture of grammar this position corresponds to [*Spec;VoiceP*]. Under the analyses which assume the Larsonian architecture (Larson, 1988, 1990), this position corresponds to [*Spec;vP*]. Therefore, '[*Spec;vP/VoiceP*]' will be used to account for these different assumptions. However, this is not to say that [*Spec;vP*] is the exact equivalent of [*Spec;VoiceP*]. Under the *Voice* theory (Cuervo, 2003; Kratzer, 1996; Pylkkänen, 2002, 2008, a.o.), the Larsonian little *v* is decomposed into *v* and *Voice*. Essentially, the external argument is licensed by a functional head that is different than *v*. Therefore, while [*Spec;vP*] and [*Spec;VoiceP*] are similar in that both are external argument positions, they are not really true equivalents. We briefly return to the problem in the chapter to follow. However, it should be noted that whenever we use '[*Spec;vP/VoiceP*]' when referring to the external argument position, we do mean that the two are equivalent.

Exp$_{DAT}$ to be merged in [*Spec;ApplP*].

4.1.2. Exp-Ths as unaccusatives

Bondaruk (2018); Bondaruk et al. (2017a,b) argue against the unaccusative analysis of Exp-Ths licensing dative (and accusative) experiencers. Their two general arguments against the unaccusative analysis of Exp$_{DAT}$ OE verbs stem from the binding properties of Exp$_{DAT}$s and passivisation. This is following Landau's (2010) remarks as to the typical properties of stative OE verbs, including, among others, the presence of backward binding and immunity to the verbal (eventive) passive. Landau argues that only stative OE verbs, i.e. Exp-Ths, are unaccusative. In contrast, eventive OE verbs are always transitive. Typical of stative OE verbs are the lack of passivisation and the presence of backward binding - thus, if both are observed in Polish Exp-Ths, this would be indicative of their unaccusative structure.

Bondaruk and Rozwadowska (2018) show that neither backward binding nor eventive passives are observed in the Polish Exp-Th construction. Based on these observations, the authors conclude that Exp-Ths cannot be unaccusative, even in the light of the lack of passivisation, typical of unaccusatives. Nevertheless, in what follows we show that the lack of backward binding in Polish does not necessarily have to provide an argument against the unaccusative analysis of Exp-Ths. Moreover, in contrast to Bondaruk and Rozwadowska (2018), we take the lack of eventive passives to be indicative of the lack of a *v/Voice* projection in Exp-Ths. Thus, we take Exp-Ths to be of the unaccusative type. We support our unaccusative analysis of Exp-Ths by two tests: the *-no/-to* construction and distributive *po*-phrases.

Backward binding In contexts with backward binding, the antecedent follows the bindee, rather than precedes it, as typically expected. This is illustrated in (22) for English and Italian respectively.

(22) a. **Each other's**$_i$ remarks appealed to **John and Mary**$_i$. (English)
(Pesetsky, 1995, 53, ex. 159a)

b. Questi pettegolezzi su di **sè**$_i$ preoccupano **Gianni**$_i$ più
these rumours about himself worry Gianni more
di ogni altra cosa. (Italian)
than anything else
'These rumours about himself worry Gianni more than anything else.' (Belletti and Rizzi, 1988, 312, ex. 57a)

Postal (1971) argued that the fact that Exps can bind anaphors embedded in Ths indicates their special syntactic status. As noted in Landau (2010, 71), a

similar idea has been entertained in Belletti and Rizzi (1988) and later adopted, in slightly different form in Pesetsky (1995).[9] Landau (2010) lists backward binding as a property of unaccusative verbs, more specifically of stative OE verbs. Following Landau, Bondaruk (2018) argues that Polish Exp-Ths cannot be unaccusative, because they do not show backward binding, as in (23).

(23) a. *[**Swoje**$_i$ zdjęcia w prasie] podobają się **celebrytom**$_i$.
self's pictures.NOM in press appeal REFL celebrities.DAT
Intended: 'Their$_i$ pictures in press appeal to the celebrities$_i$.'

b. *[**Jego**$_i$ zabawki] podobają się [**każdemu dziecku**]$_i$.
his toys.NOM appeal REFL every child.DAT
Intended: 'Its$_i$ toys appeal to every child$_i$.'

(Bondaruk, 2018, 6, ex. 26-27)

In (23a), the ungrammaticality could stem from the Anaphor Agreement Effect, discussed in Section 4.1.1. This is because the anaphor is marked with nominative case. However, the ungrammaticality of (23b), as argued in Bondaruk, stems from the Anticataphora Effects (ACE), i.e. a lack of backward binding. Thus, if backward binding is a characteristic feature of unaccusative OE verbs, as pointed out in Landau (2010), then Polish Exp-Ths cannot be unaccusative. Moreover, because Polish Exp$_{DAT}$s can act as anaphor binders, the dative must be taken to be in [*Spec;vP*], and therefore the structure cannot be unaccusative (Bondaruk, 2018).

However, while it is true that Landau (2010) lists backward binding as a property characteristic of unaccusative OE verbs, he also notes that this property is not crucial, rather peripheral. This is because "subsequent research has challenged the claim that backward binding falls under Condition A, or indeed, that it is even a structural phenomenon" (Landau, 2010, 72).[10] Landau reaches this conclusion based on Bouchard's (1992) example, in (24), where *about herself* can be coindexed with *Mary*, but not *by herself*.

(24) That book **about /??by herself**$_i$ struck **Mary**$_i$ as embarrassing.

(Landau, 2010, 73, due to Bouchard, 1992)

[9] For Postal (1971), at deep structure, the Exp is a subject, and the binding occurs at the deep level, before the Th is fronted at the surface level. For Belletti and Rizzi (1988), both arguments of the Exp-Th construction are internal, but Exp c-commands the Th and thus it can bind the Th before it is moved to the subject position. For Pesetsky (1995), the Th (taken to be a causer) is associated with two θ-positions, one below the Exp, one above. The Th is first-merged below the Exp, but it moves above it. The binding of the Th by the Exp happens before the Th moves up.

[10] See Section 5.3. of Landau (2010) for a brief overview of the examples illustrating the non-structural character of backward binding.

Bouchard (1992) shows that backward binding applies only in contexts where the DP which contains the anaphor is construed as a representation of the referent of the anaphor. As Landau indicates:

> [t]he general response to these effects is to classify backward binding with cases of *logophors*, whose antecedent must be a subject of consciousness or a participant whose point of view is evaluated in the discourse [...]. At any rate, it is safe to conclude that **backward binding is not a purely structural phenomenon, and hence does not attest to any specific feature in the syntax of psych verbs** (Landau, 2010, 73, author's own italics, my own emphasis).

Thus, as further noted by Landau, backward binding:

> should be more aptly called a pseudo-psych-property. In spite of its dominance in the early literature (...) there is every reason to believe that it has nothing to do with psych constructions as such (Landau, 2010, 65).

Therefore, even though Polish psychological verbs do not show backward binding - in fact we do not find backward binding in Polish in other contexts either (Gogłoza et al., to appear b; Witkoś, 2008) - we do not take it to be an argument against the unaccusative structure of Exp-Ths.

In contrast to backward binding, eventive passives, more precisely their lack, can be taken to be a defining property of unaccusatives. As we discuss in the section to follow, this property is associated with the Polish Exp-Th construction, which in turn supports the unaccusative analysis of Exp-Ths. This, as we show is in contrast to Bondaruk (2018); Bondaruk et al. (2017a,b), who do not take the lack of eventive passives in the Polish Exp-Th construction to be indicative of the unaccusative structure of Exp-Ths.

The lack of eventive passives With the example in (25), Bondaruk (2018) shows that eventive/verbal passives are not possible with Polish psychological verbs that license Exp_{DAT}s.

(25) a. Ewa zaimponowała Markowi.
Ewa.NOM impressed Marek.DAT
'Ewa impressed Marek.'

b. *Marek został zaimponowany przez Ewę.
Marek.NOM became impressed by Ewa
Intended 'Marek was impressed by Ewa.'

(Bondaruk, 2018, 9, ex. 36)

Bondaruk follows Marantz (1984) in assuming that passivisation is a process that absorbs the (prototypical) external theta role. As argued, (25b) is ungrammatical because "no external theta role has been absorbed, [...] but instead the external argument [i.e. Exp_{DAT}] fills the subject position of the passive sentence" (Bondaruk, 2018, 9). Consequently, the fact that Exp_{DAT} is a bona fide external argument "may be held responsible for the lack of verbal passives with stative Class III OE verbs in Polish" (Bondaruk, 2018, 9).

Note, however, that in passives it is typically the internal argument that is advanced to the subject position while the external argument is demoted. This demotion of the external argument is manifested with the fact that in a passive environment the external argument can only be realised as an oblique *by*-phrase argument, as in (26b).

(26) a. **Tomek** dał Kasi kwiaty.
Tomek.NOM gave Kasia.DAT flowers.ACC
'Tomek gave Kasia flowers.'

b. Kwiaty zostały dane Kasi **przez Tomka**.
flowers.NOM were given Kasiat.DAT by Tomek.ACC
'The flowers were given to Kasia by Tomek.'

This is in contrast to Bondaruk's example in (25b), which illustrates movement of the external Exp_{DAT} argument to the (passive) subject position, and the realisation of the Th_{NOM}, i.e. the internal argument, as the oblique subject. Thus, while (25b) does show the lack of the (non-prototypical) external argument theta role absorption, it does not illustrate a typical passive construction.

Nevertheless, it is possible to construe a passive voice example of (27), where the Exp_{DAT} is demoted to a PP argument, and where the Th is promoted to the subject position. Consider (27).

(27) *Ewa została zaimponowana przez Marka.
Ewa.NOM became impressed by Marek.ACC
Intended: 'Ewa become impressed by Marek.'

Similarly to (25b), the sentence in (27) is also ungrammatical. Crucially, the ungrammaticality of (27) demonstrates that the lack of verbal passives with Exp-Ths is not due to the lack of the external theta role absorption, as suggested by Bondaruk on the basis of example (25b). In (27), the external Exp_{DAT} is demoted to the PP argument *przez Marka* 'by Marek', suggesting the absorption of the external theta role. Yet, the sentence in (27) remains ungrammatical. The ungrammaticality of (27) must be then due to other factors.

We reject Bondaruk's justification of the lack of eventive passives with Exp-Ths. Namely, we do not take it that the lack of eventive passives with Exp-Ths is

due to the fact that the Exp_{DAT}, the external argument, fills the subject position of the passive sentence (and therefore there is no external theta role absorption in the passive). Instead, we take it that **the lack of eventive passives with Exp-Ths is due to the unaccusative character of the construction**. Thus, it is true that there is no (prototypical) external theta role absorption in Exp-Ths/stative OE verbs. However, in contrast to Bondaruk (2018), we take the lack of such theta role absorption to be due to the lack of [*Spec;vP/VoiceP*] in the structure of Exp-Ths, and with it, the lack of the (prototypical) external theta role, which could be absorbed under passivisation.

The lack of the [*Spec;vP/VoiceP*] projection in Exp-Ths makes their structure unaccusative, contrary to Bondaruk (2018), but in line with e.g. Gogłoza and Łęska (2018); Miechowicz-Mathiasen and Scheffler (2008); Tajsner (2008) for Polish, and Arad (1998); Belletti and Rizzi (1988); Landau (2010); Pesetsky (1995), a.o. for other languages. Assuming that the Polish Exp_{DAT} is projected in [*Spec;vP/VoiceP*], as not only in Bondaruk (2018) but also in Bondaruk and Rozwadowska (2018); Bondaruk et al. (2017a,b); Citko et al. (2018); Gogłoza et al. (to appear b); Miechowicz-Mathiasen (2005); Witkoś et al. (2018a, a.o.), predicts that passivisation should be available, contrary to the facts.

Formation of the *-no/-to* verb form as unaccusativity diagnostics That the Exp-Th construction in Polish is indeed unaccusative can be demonstrated by the intransitivity split diagnostics proposed in Cetnarowska (2000). Cetnarowska argues that the ***-no/-to* construction** in Polish provides a diagnostics to distinguish between unaccusatives and unergatives. In Polish, transitive and unergative verbs can have the so-called *-no/-to* form, as illustrated for transitives in (28).

(28) a. Tomek przeczytał książkę.
Tomek.NOM read book.ACC
'Tomek read the book.'

b. Przeczyta**no** książkę.
read.NO book.ACC
'They/someone read the book.'

The *-no/-to* form is diachronically passive - it is the nominal neuter form of the passive participle; however, synchronically, the form is active (Cetnarowska, 2000; Siewierska, 1988). *-No/-to* does not allow the modification by the agentive adjunct phrase *przez kogoś* 'by someone', as would be expected of a passive form (Dziwirek, 1994).

(29) *Przeczytano książkę *przez Tomka.
read.NO book.ACC by Tomek.ACC

Intended: 'Someone$_i$ read the book by Tomek$_i$.'

Cetnarowska (2000) demonstrates that the *-no/-to* form disallows unaccusative as well as passive verbs, while it allows unergative and transitive predicates.[11] This is illustrated in (30).

(30) a. Zbudowa**no** szpital w mieście (*przez żołnierzy).
built.NO hospital.ACC in town (*by soldiers)
(transitive)

'They built a hospital in town (*by soldiers).'

b. Zatańczo**no** (*przez Jana). (unergative)
danced.NO (*by Jan.GEN)
'They danced.'

c. *Wyrośnię**to** w atmosferze terroru. (unaccusative)
grew.up.NO in atmosphere.LOC terror.GEN
Intended: 'They grew up in the atmosphere of terror.'

d. *Wychudnię**to** w ciągu ostatniego miesiąca. (unaccusative)
thinned.NO in course last.GEN month.GEN
Intended: 'They grew thin in the course of the last month.'

e. *By**to** poniżanymi. (passive verb)
was.NO humiliated.VIR.PL.INSTR
Intended: 'They were humiliated.'

(Cetnarowska, 2000, ex. 5)

[11] Note, however, that iterative and habitual unaccusatives can sometimes allow the formation of *-no/-to* (Cetnarowska, 2000; Śpiewak and Szymańska, 1997). This is illustrated in (i).

(i) a. Umiera**no** z głodu i wycieńczenia. (unaccusative)
died.NO from hunger.GEN and exhaustion.GEN
'People would die from hunger an exhaustion.'

b. Pada**no** na kolana przed cesarzem. (unaccusative)
fell.NO on knees.ACC before emperor.INSTR
'People would fall on their knees in front of the emperor.'

(Cetnarowska, 2000, ex.9)

Consequently, the lack of the *-no/-to* form is a reliable unaccusativity test only with non-iterative/non-habitual predicates, as in (ii).

(ii) a. *Umar**to** z głodu. (unaccusative)
died.NO from hunger.GEN
Intended: 'They died of hunger.'

b. *?Upadnię**to** na kolana przed cesarzem. (unaccusative)
fell.NO on knees.ACC before emperor.INSTR
Intended: 'They fell on their knees in front of the emperor.'

(Cetnarowska, 2000, ex.9)

The *-no/-to* diagnostics applied to Exp-Ths confirms our observations as to the unaccusative character of the construction. This is because Exp-Th predicates do not show the *-no/-to* form.

(31) a. Tomkowi było szkoda Karoliny.
Tomek.DAT was sorrow Karolina.GEN
'Tomek felt sorry for Karolina.'

b. *By**to** żal Karoliny.
was.TO sorrow Karolina.GEN
Intended: 'They felt sorry for Karolina.'

(32) a. Tomkowi spodobała się Karolina.
Tomek.DAT appealed REFL Karolina.NOM
'Karolina appealed to Tomek.'

b. *Spodoba**no** się Karolina.
liked.NO REFL Karolina.NOM
Intended: 'They liked Karolina.'

One of our informants indicated that sentences such as (33), where the *-no/-to* form appears with the Exp_{DAT}, are acceptable.

(33) ?Spodoba**no** się Karolinie.
liked.NO REFL Karolina.DAT
'They appealed to Karolina.'

However, even if some native speakers accept (33), the form is not productive hence the '?' in (33). Searches on Google and on the Polish National Corpus did not return any similar examples, except for two misspelled forms. Thus, we do not consider (33) a counterexample to our argument. We take it that both verbal and non-verbal Exp-Th predicates are ungrammatical with the *-no/-to* form. This observation, combined with the fact that Exp-Ths do not form eventive passives, indicates that Exp-Ths are unaccusatives. This observation is further supported by the distributive *po*-phrases test.

Distributive *po*-phrases as unaccusativity diagnostics Earlier in this chapter, in the examples in (12), we used the licensing of distributive *po*-phrases test to demonstrate that the Th argument of Exp-Ths is merged verb-internally while the Exp_{DAT} is projected verb-externally. The same test can also be used as a diagnostic for unaccusativity. As argued in Babby (1980); Pesetsky (1982) for Russian and Cetnarowska (2000) for Polish, distributive *po*-phrases are limited to: a) the object position (of transitives and unaccusatives) and b) to the (derived) subject position of unaccusatives. Distributive *po*-phrases are highly degraded in the subject position (of active or passive voice of non-unaccusatives). Consider the distribution of *po*-phrases with a transitive verb in (34).

(34) a. Dziewczynki obejrzały **po odcinku z każdej serii**.
girls.NOM watched PO episode from each series
'The girls have watched one episode from each TV series.'

b. ??**Po dziewczynce z każdej grupy** obejrzało nowy serial.
PO girl from each group watched new series
'A girl from each group watched the new TV series.'

c. ??**Po odcinku z każdej serii** zostało obejrzane.
PO episode from each series was watched
'An episode from each TV series has been watched.'

Because distributive *po*-phrases are accepted in the derived subject position of unaccusatives, if Exp-Ths are unaccusative, then distributive *po*-phrases should be allowed in the Th position (demonstrated earlier to be an internal argument), regardless of whether the Th is in situ or moved to the subject position. This, as demonstrated in (35), is the case.

(35) a. Tomkowi spodobało się **tylko po odcinku z każdej serii**.
Tomek.DAT appealed REFL only PO episode from each series
'Only one episode of each of the TV series appealed to Tomek.'

b. **Tylko po odcinku z każdej serii** spodobało się Tomkowi.
only po episode from each series appealed REFL Tomek.DAT
'Only one episode from each TV series appealed to Tomek.'

We take the grammaticality of distributive *po*-phrases in (35) - in the object position as well as the derived subject position, respectively - to support our unaccusative analysis of Exp-Ths.

However, a question arises. How to account for the external nature of the high Exp_{DAT} argument, demonstrated in Section 4.1.1, and the unaccusative character of its predicate, demonstrated in this section? Under the Larsonian *VP*-shell hypothesis (Larson, 1988, et seq.), the two observations seem contradictory. If we take the Exp_{DAT} to be merged in [*Spec;vP*] (and as a licit anaphor antecedent, the Exp_{DAT} does seem to belong to [*Spec;vP/VoiceP*]), the predicate of Exp-Ths cannot be taken to be unaccusative. Yet, as shown in this section, there are arguments for the unaccusative analysis of Exp-Ths.

In contrast to the analyses which follow Larson (1988, et seq.), the architecture assumed in this thesis allows to account for both the subject-like behaviour of the Exp_{DAT} and the unaccusative character of the Exp-Th predicate. We take Exp_{DAT}s to be external arguments of the applicative type. Exp_{DAT}s are merged in [*Spec;ApplP*], rather than [*Spec;vP/VoiceP*], which we take to

be missing from the unaccusative structure of Exp-Ths. The high applicative Exp_{DAT} is projected above v, which allows it to antecede anaphors and control participial clauses. At the same time, the lack of the *Voice* projection accounts for the unaccusative character of the predicate, and therefore the lack of eventive passives, *-no-/to* form, or distributive *po*-phrases licensing. In the section to follow, we discuss this high applicative unaccusative proposal in more detail. However, before we move on to the discussion of the analysis, we briefly focus on the applicative nature of the Exp_{DAT} argument.

4.2. Analysis - Exps as high applicatives

In this section, we explore the idea of Exp_{DAT}s as high applicatives. We propose an account of Polish Exp-Ths which is similar, although not identical, to that of Cuervo (2003) for Spanish Exp_{DAT}s. This is in contrast to Bondaruk (2018) and Bondaruk and Rozwadowska (2018), who argue against extending the analysis of Cuervo (2003, 2010) to the Polish Exp-Th construction. Two points in Cuervo's account are pointed out as problematic with regard to Polish data. Firstly, the authors note that, in contrast to Spanish, the Polish Th should not be analysed as merged in [*Spec;vP*$_{BE}$]. Secondly, the authors show that in contrast to Spanish, the Polish Exp_{DAT} is not fully optional. We agree with both points mentioned by Bondaruk and Rozwadowska (2018) concerning Cuervo's structure when applied to Polish. Nevertheless, we do not dismiss an applicative account of Polish Exp_{DAT}s based on the fact that Cuervo's analysis cannot be applied to Polish data. Instead, we modify Cuervo's analysis to account for the Polish data. The analysis proposed explains the observations made thus far. Our analysis also accounts for Bondaruk's and Bondaruk and Rozwadowska's justified critique of Cuervo's structure when applied to Polish.

Starting with the problem of the subject status of the Th argument of Exp-Ths, as noted in Bondaruk and Rozwadowska (2018, 5): "[f]or Cuervo (2003), the T/SM [theme/subject matter] does not represent an object, because it is constrained in a way uncharacteristic of objects, but typical of subjects". Cuervo shows that the licensing of the Th object in Spanish is restricted in the same way subjects in Spanish typically are, namely the Th cannot be licensed as a bare nominal. This is illustrated in (36).

(36) a. A Daniela le gusta ***(el)** vino.
Daniela.DAT CL.DAT likes the wine
'Daniela likes wine.'

b. A Daniela les gustan ***(las)** estampillas.
Daniela.DAT CL.DAT like.PL the stamps

'Daniela likes stamps.'

(Cuervo, 2003, 167, ex. 10)

As generalised in (37), Spanish bare nominals cannot be external arguments, nor subjects of small clauses.

(37) **The naked Noun Phrase Constraint**
An unmodified common noun cannot be the subject of a predicate under conditions of normal stress and intonation.

(Cuervo, 2003, 166, ex.8)

Because the Th cannot be a bare nominal, Cuervo argues that it is the subject of the predicate. This, as we have demonstrated in the previous section as well as in Section 4.1.1, cannot be the case for Polish. This is because distributive *po*-phrases as well as extraction phenomena indicate that the Polish Th is an internal argument.

Cuervo additionally argues that the Spanish Th is the subject of the predicate, because it is the Th argument that establishes a predication relation with the verb. This, as argued by Cuervo, is indicated by the fact that the Exp_{DAT} can be dropped, as in (38), which demonstrates that the predicate describes a property of the Th, not the Exp.

(38) a. Las películas japonesas gustaron mucho.
[the movies Japanese].NOM pleased.PL a.lot
'The Japanese movies were very much liked.'
('Many people liked the Japanese movies.')

b. Los chicos propios nunca molestan.
[the kids own].NOM never bother.PL
'Your own children are never bothersome.'

(Cuervo, 2003, 165, ex. 11)

Similarly to Spanish, the Th of the Polish Exp-Th construction must be overtly realised, while the Exp_{DAT} can be dropped.[12]

(39) a. Te filmy podobają się.
these films.NOM appeal REFL
'These films are liked.'

[12] In contrast to Exp_{DAT}s, which denote a mental experience, accusative-marked experiencers, which typically denote a physical experience, cannot be dropped.

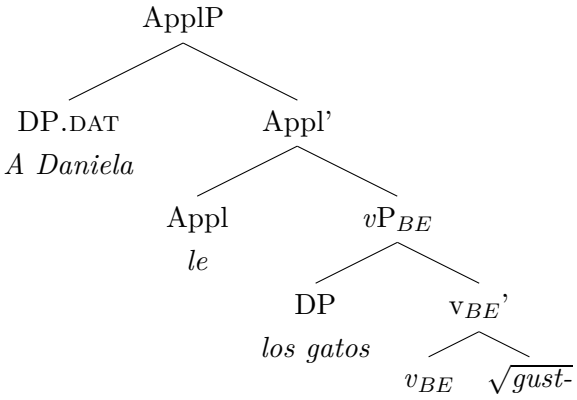
(i) *(**Kasię**) boli głowa.
Kasia.ACC hurt.3SG head.NOM
'Kasia's head hurts.' (i.e. 'Kasia has a headache.')

b. Było żal całego świata.
was pity whole.GEN world.GEN
'One felt pity for all the world.'

(Bondaruk and Rozwadowska, 2018, 6, ex. 30-31)

If we were to adopt Cuervo's analysis to Polish, the ability to drop Exp_{DAT}s, as in (39), could indicate that the Polish Th is a subject in [*Spec;vP*$_{BE}$], as proposed for Spanish in (40).

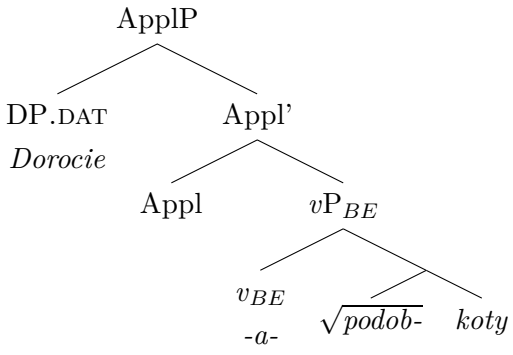
(40) A Daniela le gustan los gatos.
Daniela.DAT CL.DAT like.PL the cats
'Daniela likes the cats.'



(Cuervo, 2003, 165, ex. 6)

However, following Fábregas et al. (2017, 36), Bondaruk and Rozwadowska (2018) indicate if the Th is a specifier of a stative verbal functional head, it "does not preclude the possibility that the psychological state is experienced by the [Spec;vP] [i.e. by the Th]" (Bondaruk and Rozwadowska, 2018, 7). We agree with this observation. What is more, as already mentioned, the licensing of distributive *po*-phrases as well as subextraction indicate that the Polish Th is a complement of the root, thus not in [*Spec;vP*$_{BE}$]. Therefore, we propose that the (simplified, to be discussed in more detail later) structure in (41) is representative of Polish Exp-Ths.

(41) Dorocie podobają się koty.
Dorota.DAT appeal.3PL REFL cats.NOM
'Cats appeal to Dorota.'



In (41), the Exp$_{DAT}$ is a high applicative, projected above *v*. The Th, which is the internal argument of the predicate, is merged as a complement of the root. The *Voice* projection is missing, as expected of unaccusatives.

Nevertheless, Bondaruk (2018) and Bondaruk and Rozwadowska (2018) reject any applicative analysis of Exp$_{DAT}$s. The authors assume that applicatives are non-compulsory arguments, and argue that Polish Exp$_{DAT}$s cannot be projected in [*Spec;ApplP*], because they are not fully optional (Bondaruk and Rozwadowska, 2018). As argued, "[a]lthough the dative experiencer is optional with both verbal and non-verbal psychological predicates [...], it is projected in the syntax, because it can license secondary predicates" (Bondaruk and Rozwadowska, 2018, 6). This is illustrated in (42).

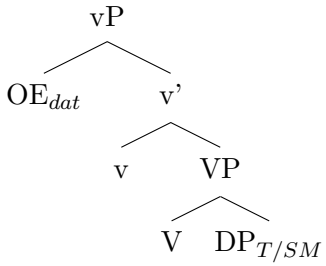
(42) a. Te filmy podobają się tylko **po pijanemu**.
these films.NOM appeal REFL only while drunk
'These films are liked while one is drunk.'

b. Było żal całego świata **po pijanemu**.
was pity whole world.GEN while drunk
'One felt pity for the whole world while drunk.'

(Bondaruk and Rozwadowska, 2018, 6, ex. 32-33)

Following Landau (2010), Bondaruk and Rozwadowska (2018) argue that only strong implicit arguments, i.e. *PRO* and *pro*, can license secondary predicates. In the examples in (42), the Exp argument is not phonologically realised. However, the fact that the secondary predicate *po pijanemu* 'while dunk' is lexicalised indicates that a covert Exp must be realised in the syntax as *pro*. If so, the Exp$_{DAT}$ cannot occupy the [*Spec;ApplP*] position, as it is reserved only for fully optional arguments (Bondaruk and Rozwadowska, 2018). Instead, based on the fact that Exp$_{DAT}$s can antecede anaphors, the authors argue that Exp$_{DAT}$s occupy [*Spec;vP*]. The following basic structure of Class III OE verbs is proposed by the authors:

(43)



(Bondaruk and Rozwadowska, 2018, 7, ex. 37)

However, as we have already discussed in detail in the previous chapters, especially in Section 2.3.3 of Chapter 2 and Section 3.3.3.1 of Chapter 3, assuming that applied arguments are limited to optional arguments does not account for the whole range of applicative uses (including uses in languages with prototypical applicative suffixes). In fact, there is evidence that some applied arguments are selected by the verb, and therefore implied when not realised phonologically. For example, as argued in Chapter 3, the recipient argument of double object constructions (DOCs)/dative accusative constructions (DACs), typically taken to be licensed as a low applicative is implied/entailed even when it is dropped. The same, as noted by Bondaruk and Rozwadowska (2018) themselves, is true of Exp$_{DAT}$s. This observation can be supported by the entailments illustrated in (44) and (45).

(44) a. Te filmy podobają się Markowi.
these films.NOM appeal REFL Marek.DAT
'These films appeal to Marek.'

b. Te filmy podobają się.
these films.NOM appeal REFL
'These films are liked (by someone).'

c. (44b) **entails**: 'There is someone who finds these films appealing.'

(45) a. Markowi było żal całego świata.
Marek.DAT was pity whole world.GEN
'Marek felt pity for the whole world.'

b. Było żal całego świata.
was pity whole world.GEN
'(Someone) felt pity for the whole world.'

c. (45b) **entails**: 'There is someone who felt pity for the whole world.'

Thus, we agree with Bondaruk and Rozwadowska (2018) that the Exp$_{DAT}$ of the Polish Exp-Th construction is subcategorised for. However, based on the discussion in Section 2.3.3 of Chapter 2 and Section 3.3.3.1 of Chapter 3, we do not take this observation to indicate that Exp$_{DAT}$s must not be taken to be applicative in nature.

Moreover, as Bondaruk and Rozwadowska (2018) note themselves, some, e.g. Pitteroff and Schäfer (2018a,b), argue that the implicit argument that licenses secondary predicates is not represented in the syntax. Rather, implicit arguments are present only at the semantic level. What is more, even if the implicit argument had to be obligatorily realised in the syntax, it still does not necessarily mean that it has to obligatorily be realised in the [*Spec;vP*] position. In fact, some propose, e.g. Roberge and Troberg (2009), that the specifier position of a high applicative head can be realised by a *pro* or an expletive element. Even Landau (2010, 382), on whose work the argument of Bondaruk and Rozwadowska (2018) is built, indicates that the specifier position of an applicative head can be realised as a *pro*.[13]

Therefore, we take it that the licensing of secondary predicates under the Exp_{DAT} drop does not necessarily provide an argument against the high applicative status of the Exp_{DAT}. In fact, as argued in Pylkkänen (2002, 2008) and discussed in Section 2.3.1 of Chapter 2, the licensing of secondary predicates is one of the characteristic properties of high applicatives and what differentiates high applicatives from the low ones. Thus, the observation of Bondaruk and Rozwadowska (2018) with regard to secondary predicate licensing with dropped Exp_{DAT}s does not necessarily prove the applicative analysis of Exp_{DAT}s wrong. Rather, under the applicative analysis of Exp_{DAT}s, this observation simply shows that high applicative arguments can license secondary predicates even if not overtly realised. In what follows, we take it that Polish Exp_{DAT}s are licensed by the high applicative head. We explore the analysis in more detail in the section to follow.

4.2.1. Polish Exp-Ths - the structure

Based on the discussion in this chapter thus far, we can list the following properties of Exp_{DAT}s in Polish:

(46) **The properties of Polish Exp_{DAT}s:**

a. **Exp_{DAT} does not move to [*Spec;TP*]**. Exp_{DAT} does not establish Agree with *T*, nor does it show the subject-like properties associated with nominative-marked subjects.

b. **Exp_{DAT} is not projected in [*Spec;VoiceP/vP*]; it is projected as part of an unaccusative predicate**. Although Exp_{DAT} can antecede anaphors, a feature typically associated with [*Spec;VoiceP /vP*] (or [*Spec;TP*]) positions (Bondaruk and Rozwadowska, 2018;

[13] Note, however, that Landau himself does not comment on applicatives of the experiencer type, only on low applicatives that license (implicit) indirect objects.

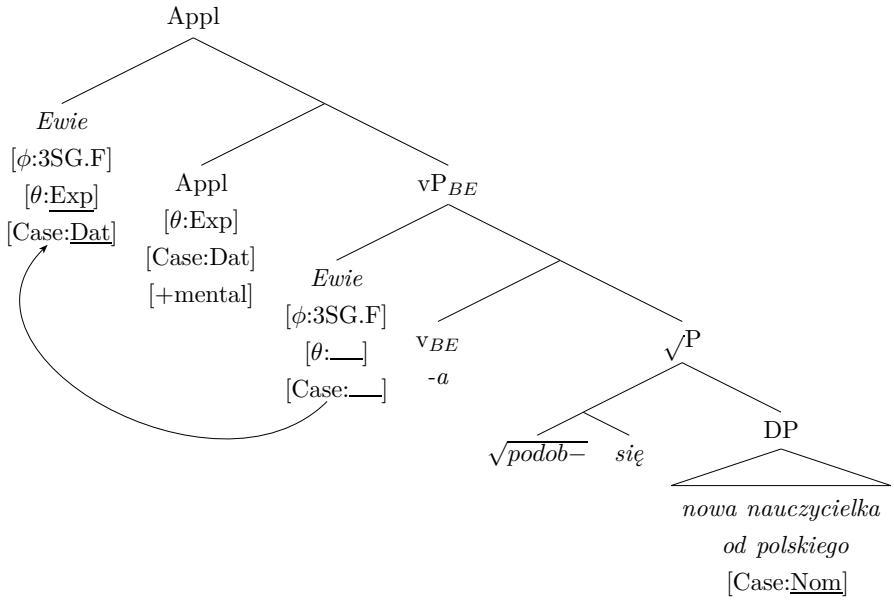
Gogłoza et al., to appear b; Nikolaeva, 2014; Witkoś et al., 2018a, a.o.), Exp-Th predicates do not form eventive passives, indicating that they lack a prototypical external argument. Moreover, Exp-Th predicates do not show the *-no/-to* form, suggesting their unaccusative nature. Also, Exp-Ths allow distributive *po*-phrases in the derived subject position, as is typical of unaccusatives.

c. **Exp$_{DAT}$ is a high applicative**; it is projected above the categorising v - this high projection is responsible for the subject-like properties of ExpDAT, e.g. anaphor binding or licensing of participial adjunct clauses. The [*Spec;ApplP*] position, however, differentiates high applicatives from prototypical external arguments, merged in [*Spec;VoiceP/vP*].

d. **Exp$_{DAT}$ is subcategorised for** - when not phonologically realised, it is implied/entailed.

In order to account for these observations, we propose the following structural representation of Exp-Ths in Polish:[14]

(47) Ewie spodobała się nowa nauczycielka od polskiego.
Ewa.DAT appealed REFL new teacher.NOM from Polish.GEN
'The new teacher of Polish appealed to Ewa.'



As a true internal argument, the Th is projected in the complement of the root position. The Exp is first-merged in [*Spec;vP$_{BE}$*], explaining the fact that it is

[14]Note that, in contrast to the tree representations in Chapter 3, in (47) as well as in the tree structures to follow, we abstract away from commenting on the realisation of the inner and outer aspect, i.e. the realisation of verbal prefixes.

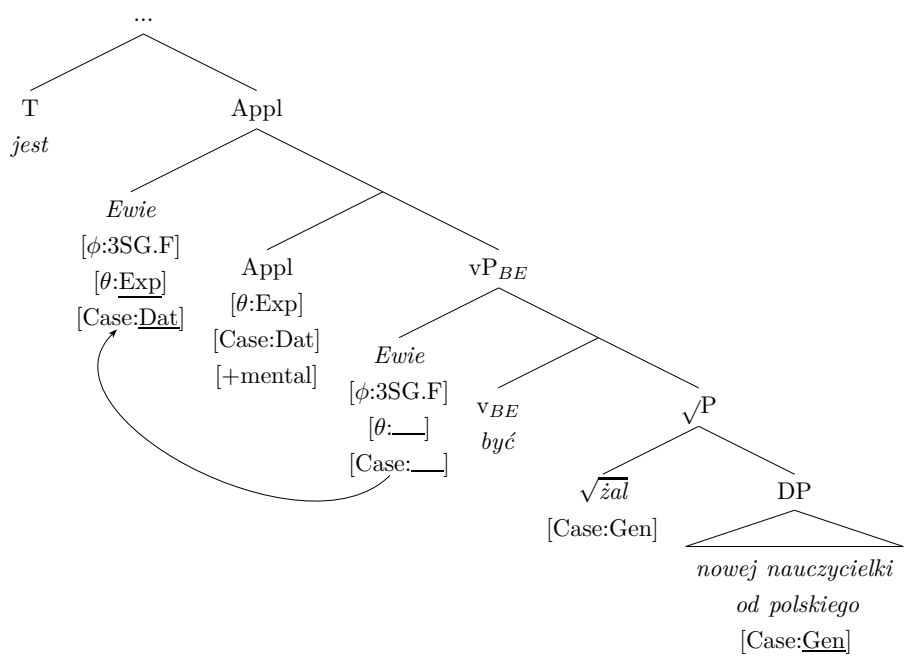
subcategorised for by the verb. This merge position also accounts for the fact that the Exp is interpreted as a state holder - in the case of (47), the state of liking the teacher. On movement to [*Spec;ApplP*], the Exp argument is *made* into a high applicative. Once in [*Spec;ApplP*], Exp$_{DAT}$s has its case and θ-features valued under Agree with *Appl*. This is also where the Exp becomes associated with the [+mental] feature. When not overtly realised, the [*Spec;ApplP*] position is occupied by *pro*, accounting for the possibility to license secondary depictive predicates even under Exp$_{DAT}$ drop.

The verb is decomposed into the root, combined with the reflexive marker *się*, and the verbalising head *vBE*, which, in the case of (47), is morphologically realised as the thematic vowel *-a-*. The Exp$_{DAT}$ argument licensing *Appl* head is merged above vP_{BE}. This high merge position of Exp$_{DAT}$ explains why Exp$_{DAT}$ shows some subject-like properties, particularly anaphor binding (in Exp-Th$_{nonNOM}$). The predicate being unaccusative, it does not project a *Voice* head. This explains why neither of the arguments passivises, or why it does not show the *-no/-to* verb form. The Th argument receives its nominative case under downward *Agree* with *T* (not represented in the tree in (47) above). We discuss such downward *Agree* and circumstances under which it occurs in more detail in Section 4.2.2 below.

For non-verbal predicates of Exp-Ths, we propose a very similar structure. The difference between verbal and non-verbal Exp-Ths lies in the case marking of the Th and the lexical element realising the root projection as well as the v$_{BE}$ head. The structure is illustrated in (48).

(48) Ewie (jest) żal nowej nauczycielki od polskiego.
Ewa.DAT is sorrow new.GEN teacher.GEN from Polish.GEN

'Ewa feels pity for the new teacher of Polish.'



In contrast to verbal Exp-Ths, the verbalising v_{BE} in (48) is lexicalised as the copula verb *być* 'to be'. On movement to T (or, alternatively, downward probing of T), the copula is valued with the default 3^{rd} person singular form, and it is lexicalised in the present tense as *jest*. Also, in contrast to the verbal Exp-Th predicate, the Theme argument in (48) does not have its [Case:___] feature valued through *Agree* with T. Because the genitive case on the Th is lexical, it is valued under *Agree* with the root, which is marked with [Case:Gen].

Summing up, we proposed that both verbal and non-verbal Exp-Ths in Polish show an unaccusative structure, which lacks *Voice*. In both cases, the Exp$_{DAT}$ argument is taken to be base-generated in [$_{\sqrt{}}P$], and made into the high applicative by movement to [*Spec;ApplP*]. By taking Exp$_{DAT}$s to be high applicatives, rather than external arguments base-generated in [*Spec;vP/VoiceP*], we accounedt for the subject-like properties of Exp$_{DAT}$s without rejecting an unaccusative analysis of Exp-Ths. In what follows, we focus on the two possible argument orders in Exp-Ths. Based on binding by the preverbal Exp$_{DAT}$ as opposed to the preverbal Th$_{NOM}$, we take it that Exp$_{DAT}$s move to [*Spec;CP*] while Th$_{NOM}$s move to [*Spec;TP*] when projected verb-internally. Exp$_{DAT}$s in [*Spec;CP*] reconstruct with regard to binding to [*Spec;ApplP*], from where they can bind anaphors as long as the anaphor binding is not blocked by the Anaphor Agreement Effect. Preverbal Th$_{NOM}$s extend their binding domain; once in [*Spec;TP*], Th$_{NOM}$s become licit anaphor binders.

4.2.2. Two orders of Exp-Ths - DAT-NOM and NOM-DAT

In the previous section, we proposed that verbal and non-verbal Exp-Th predicates in Polish have a high applicative unaccusative structure. In this section, focusing on verbal predicates, we briefly comment on the two possible main constituent orders of the construction in question, namely the Exp_{DAT}-Th_{NOM} (DAT-NOM) and the Th_{NOM}-Exp_{DAT} (NOM-DAT) order.[15] A comprehensive analysis of information structure in Exp-Ths lies outside of the scope of this work. In what follows, we only briefly comment on the observations made in Jiménez-Fernández and Rozwadowska (2016), who account for all-focus and topic-focus contexts. We also propose an alternative analysis of the discussed data.[16]

Based on a survey, Jiménez-Fernández and Rozwadowska (2016) indicate that in Polish, either order, DAT-NOM or NOM DAT, is possible in all-focus, i.e. discourse-neutral, contexts. Native speakers show no preference for any of the two word order permutations, illustrated in (49).

(49) a. $\text{Exp}_{\textit{Aboutness Topic}}$ - $\text{Th}_{\textit{Information Focus}}$

Ewie spodobała się **nowa nauczycielka od polskiego**.
Ewa.DAT appealed REFL new teacher.NOM from Polish.GEN
'The new teacher of Polish appealed to Ewa.'

b. $\text{Th}_{\textit{Aboutness Topic}}$ - $\text{Exp}_{\textit{Information Focus}}$

Nowa nauczycielka od polskiego spodobała się **Ewie**.
new teacher.NOM from Polish.GEN appealed REFL Ewa.DAT
'The new teacher of Polish appealed to Ewa.'

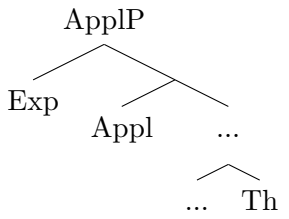
For both of these orders, Jiménez-Fernández and Rozwadowska (2016) propose that the preverbal argument moves to the [*Spec;CP*] position. However, in contrast to the authors, we argue that in all-focus contexts, there is no need for movement to the CP domain. We take it that the Th argument moves to

[15] To be more precise, more constituent orders in the Exp-Th constructions are possible. As noted in Miechowicz-Mathiasen and Scheffler (2008), a corpus study of *podobać się* 'to appeal' indicated the following possible orderings: a) Exp_{DAT} - REFL - verb - Th_{NOM}, b) Exp_{DAT} - verb REFL - Th_{NOM}, c) Th_{NOM} - REFL - verb - Exp_{DAT}, d) Th_{NOM} - verb - REFL - Exp_{DAT}, e) Th_{NOM} - Exp_{DAT} - verb - REFL. However, because in what follows, we concentrate on the the question of the movement of the Exp and Th arguments to the preverbal position, we focus only on the Exp_{DAT}-Th_{NOM} and Th_{NOM}-Exp_{DAT} orders.

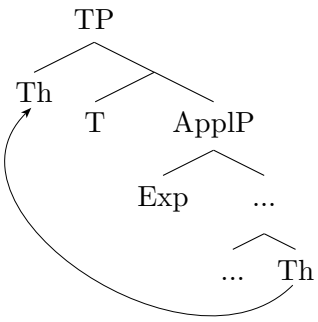
[16] The analysis presented in this section follows, with some changes, the account presented in Gogłoza and Łęska (2018). However, Gogłoza and Łęska (2018) assume an unaccusative structure of Exp-Ths and the Larsonian VP-Shell, and thus they take the Exp_{DAT} argument to be merged in [*Spec;VP*]. In this section, we propose an alternative unaccusative account, namely the applicative one.

[*Spec;TP*] while the Exp remains in situ, in [*Spec;ApplP*], as represented (and simplified) in (50).

(50) a. Exp$_{\textit{Aboutness Topic}}$ - Th$_{\textit{Information Focus}}$



b. Th$_{\textit{Aboutness Topic}}$ - Exp$_{\textit{Information Focus}}$



That the Th in NOM-DAT moves to [*Spec;TP*] can be supported with binding phenomena. A preverbal Th of Exp-Ths can act as anaphor antecedent, as illustrated in the example in (51), tested experimentally with native speakers.

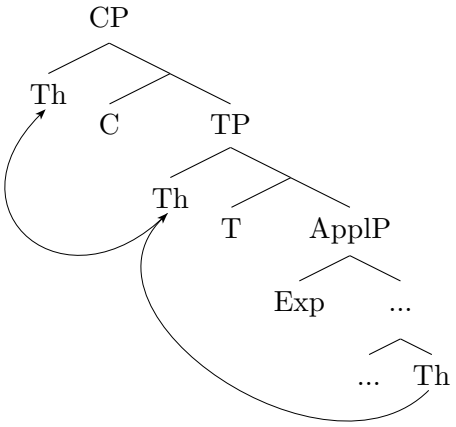
(51) **Tomek**$_i$ podoba się **swojej**$_i$ /***jego**$_i$ koleżance.
Tomek.NOM appeal REFL self's.DAT /his.GEN friend.DAT
'His (female) friend appeals to Tomek.'
(Gogłoza and Łęska, 2018, 520, ex. 11b)

The ability to antecede anaphors by the Th from a preverbal position indicates that the Th must move to [*Spec;TP*]. This observation applies to both all-focus and discourse-marked contexts.

Under the analysis of Jiménez-Fernández and Rozwadowska (2016), preverbal Ths and Exps are not predicted to be licit anaphor binders, contrary to (51), and to what we discussed in Section 4.1.1. This is because in Jiménez-Fernández and Rozwadowska (2016), both the Th and the Exp move from *VP* to *CP* (both without stopping in the *TP* domain). Thus, with regard to binding under the account of Jiménez-Fernández and Rozwadowska (2016), the Th and Exp will reconstruct to their position within *VP*. In this position, neither of the arguments can act as a licit anaphor binder, contrary to the facts. Under our proposal, both the Th, in [*Spec;TP*], and the Exp, in [*Spec;ApplP*], can antecede anaphors, which we take to support our analysis.

We take it that in discourse-neutral contexts, a preverbal Th_{NOM} moves from $\sqrt{P}$ to [*Spec;TP*] where it remains, as in (50b). In discourse-marked contexts, the Th moves further, from [*Spec;TP*] to [*Spec;CP*], as represented (and simplified) in (52).

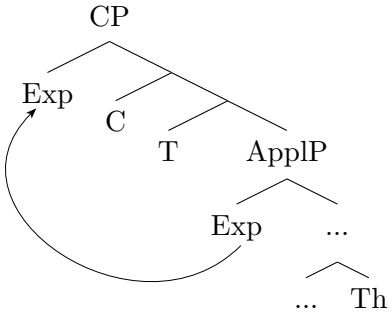
(52) $\text{Th}_{\textit{Given Topic}}$ - $\text{Exp}_{\textit{Information Focus}}$



The Th_{NOM} can antecede anaphors when in [*Spec;CP*], because it reconstructs to [*Spec;TP*] with regard to binding. Thus, both when moved to [*Spec;CP*] and [*Spec;TP*], the preverbal Th_{NOM} can act as a licit anaphor antecedent of the c-commanded argument, here the Exp_{DAT}.

For the discourse-marked DAT-NOM order of non-verbal Exp-Ths, we propose that, the Exp moves to [*Spec;CP*], as in (53). This movement is akin to the movement of the Ths in discourse-marked NOM-DAT order.

(53) $\text{Exp}_{\textit{Given Topic}}$ - $\text{Th}_{\textit{Information Focus}}$



When in [*Spec;CP*], the Exp reconstructs to [*Spec;ApplP*] for the purpose of binding. In [*Spec;ApplP*], the argument is high enough to act as anaphor binder, as long as such binding is not blocked by the Anaphor Agreement Effect, discussed in Section 4.1.1. In verbal Exp-Ths in the DAT-NOM order, the Exp_{DAT}

cannot act as the anaphor antecedent, as the c-commanded Th is marked with nominative, which causes the AAE. However, in non-verbal Exp-Ths in the DAT-nonNOM order, the Exp is a licit anaphor binder, as the Th is marked with a non-nominative case - genitive - not causing the AAE. The difference with regard to binding by Exp_{DAT} and the Anaphor Agreement Effect is illustrated in (54).

(54) a. **verbal Exp-Ths, DAT-NOM**

Tomkowi$_i$ spodobała się ***swoja**$_i$ **/jego**$_i$ koleżanka.
Tomek.DAT appealed REFL self's.NOM his.GEN friend.NOM.
'His friend appealed to Tomek.'

b. **non-verbal Exp-Ths, DAT-nonNOM**

Tomkowi$_i$ jest żal **swojej**$_i$ **/jego**$_i$ koleżanki.
Tomek.DAT is sorrow self's.GEN /his.GEN friend.GEN
'Tomek feels sorry for his friend.

The grammaticality judgments are based on the observations drawn from two experimental studies on binding by Exp_{DAT}s in Polish, reported in Gogłoza and Łęska (2018); Gogłoza et al. (2018, to appear b).

Note also that we take it that in (54), the Th does not move to [*Spec;TP*] for case. If the Th moved to [*Spec;TP*], it would become a licit antecedent of any c-commanded argument. In such structural configuration, the Th in [*Spec;TP*] could act as an antecedent for an anaphor in the [*Spec;ApplP*] - a position to which the Appl argument would reconstruction for the purpose of binding. This means that we could have a preverbal Exp with an anaphor, followed by a Th, as in (55).

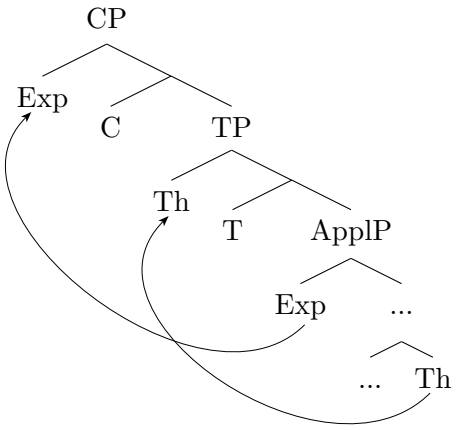
(55) a. ***Swojej**$_i$ żonie spodobał się **Tomek**$_i$
self's wife appealed REFL Tomek.NOM
Intended: 'Self's wife appealed to Tomek.'

b. ***Swojej**$_i$ żonie żal jest **Tomka**$_i$.
self's wife.DAT sorrow is Tomek.GEN
Intended: 'Self's wife was sorry to Tomek.'

We take the ungrammaticality of (55) to indicate that the Th in (55) does not move to [*Spec;TP*]. This, however, does not mean that we never see dative-marked anaphors in a preverbal position. In left-dislocated contexts, it is possible to have the Th in [*Spec;TP*] and a dislocated Experiencer with an anaphor, bound by the Th, as in (56).

(56) **Swojej**$_i$ żonie, **Tomek**$_i$ się spodobał.
self's wife.DAT Tomek.NOM REFL appealed

'His wife, Tomek appealed to.'



Summing up, in contrast to Jiménez-Fernández and Rozwadowska (2016), we take it that in all-focus contexts, there is no movement of the Exp or the Th to [*Spec;CP*]. For the DAT-NOM order, we proposed that the Exp remains in situ, in [*Spec;ApplP*], from where the Exp c-commands the Th. In the NOM-DAT order, a nominative-marked Th moves to [*Spec;TP*], where it becomes a licit anaphor antecedent. In discourse-marked contexts, the Exp or the Th can move to [*Spec;CP*]. For the NOM-DAT order, the Th moves from its base-generated position to [*Spec;CP*] stopping at [*Spec;TP*], contra Jiménez-Fernández and Rozwadowska (2016). In the DAT-NOM order, the Exp moves from [*Spec;ApplP*] to [*Spec;CP*] while the Th remains in situ.

In Chapter 5 to follow, we return to the movement of the arguments of the Exp-Th construction in Polish, particularly the movement of the nominative Th to [*Spec;TP*] in discourse-free NOM-DAT order. We show how A-movement in Polish Exp-Ths differs from such movement in Icelandic. Based on the differences between Polish and Icelandic we argue that dative case in Icelandic is a quirky case, i.e. a combination of an inherent and structural case. In contrast, the Polish dative on Exp$_{DAT}$s lacks the additional structural case, i.e. the dative is not quirky. Moreover, based on A-movement in Exp-Th constructions in Polish as opposed to Icelandic, we show that Polish Exp$_{DAT}$s are verb-external while Icelandic Exp$_{DAT}$s appear to be verb-internal. This is following the hypothesis introduced in Chapter 2 as to the cross-linguistic distinction into *Appl* heads whose maximal projection is that of *vP* (verb-internal) and those whose maximal projection is that of *ApplP* (verb-external). However, before we turn to Chapter 5, we very briefly comment on the difference between dative-marked and accusative-marked experiencers in Polish stative psychological verbs.

4.2.3. A few words on accusative Exps

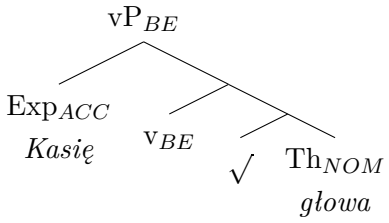
As we already briefly illustrated in (7), alongside Exp_{DAT} OEs, Polish also has accusative experiencers (Exp_{ACC}). Consider some more examples of OE verbs with Exp_{ACC}s in (57).

(57) a. **Kasię** boli głowa.
Kasia.ACC hurts head.NOM
'Kasis has a headache.'

b. **Kasię** mdli.
Kasia.ACC nauseates
'Kasia feels sick.'

Such stative Exp_{ACC}s, as we propose, are not of the applicative type. We take it that stative Exp_{ACC}s have the general structure represented in (58).

(58) **Kasię** boli głowa.
Kasia.ACC hurts head.NOM
'Kasis has a headache.'



Similarly to Exp_{DAT}s, we take Exp_{ACC}s to be merged in the [*Spec;vP*$_{BE}$] position. However, in contrast to Exp_{DAT}s, we take it that Exp_{ACC}s do not move to [*Spec;ApplP*]. Thus, Exp_{ACC}s are not made into high applicatives. Note that in contrast to Exp_{DAT}s, Exp_{ACC}s typically denote a physical state rather than a mental one. Thus, even though Exp_{ACC}s are [+animate], they are not marked with [+mental]-feature. This, in turn, means that Exp_{ACC}s do not denote a state of mental affectedness.

Nevertheless, it should be noted that we do find examples of Exp_{ACC}s which denote a mental, rather than physical, state, as in (59).

(59) **Kasię** martwi zła pogoda.
Kasia.ACC worries bad weather.NOM
'Kasia worries about bad weather.'

However, these examples are exceptional in the sense that they are ergative predicates that alternate between an agentive transitive variant and a stative unaccusative one, as illustrated in (60). We discuss the presence of accusative case in unaccusative structures later in this section.

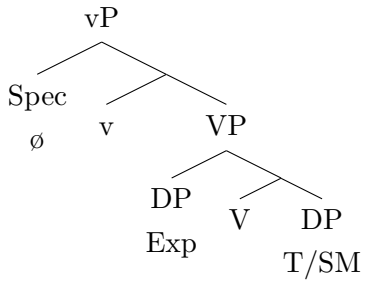
(60) a. Tomek celowo zmartwił **Kasię**.
Tomek.NOM intentionally worried Kasia.ACC
'Tomek intentionally worried Kasia.'

b. **Kasię** martwi zła pogoda.
Kasia.ACC worries bad weather.NOM
'Kasia worries about bad weather.'

We take a predicate's ability to alternate in a way illustrated in (60) to indicate that the experiencer, even though denoting a mental state is not an applicative argument. This is because a similar alternation is not possible with applicative experiencers.

We take stative OE verbs that license Exp_{DAT}s and those that license Exp_{ACC}s to be unaccusative. This, however, is in contrast to Bondaruk et al. (2017a,b) who argue against the unaccusative structure of Exp_{ACC}-Th_{NOM}. Instead, following Bennis (2004), the authors propose a complex ergative structure for Exp_{ACC}s licensing OE predicates, illustrated in (61). The structure akin to (61), was earlier proposed in Klimek and Rozwadowska (2004), who also follows Bennis.

(61)



The Exp_{ACC} argument is taken to be merged in [*Spec;VP*]. Exp_{ACC} c-commands the theme/subject matter (T/SM) argument in the complement of V position. The little v is projected above *VP*, however its external, [*Spec;vP*] position remains empty. Crucially, even though the structure lacks an external argument, following Bennis (2004), Bondaruk et al. (2017a,b) assume that the little v is associated with the accusative feature. As proposed by the authors, this presence of [+ACC] differentiates such complex ergative structures from unaccusative structures, which lack both the external argument and [+ACC].

That the syntactic licensing of the external argument is linked to (structural) accusative-case licensing is taken in Bondaruk et al. (2017a,b) to follow from Burzio's Generalisation. Because unaccusatives lack an external agent role, Burzio linked the ability of the predicate to assign accusative to its ability to assign external, agent theta role, as in (62).

(62) **Burzio's Generalisation**
All and only the verbs that can assign a θ-role to the subject can assign

> accusative Case to an object. [where subject is the agent external argument]
>
> (Burzio, 1986, 178)

As Bondaruk et al. (2017a,b) argue, the structure of OE verbs licensing Exp_{ACC} cannot be unaccusative, since it assigns a structural accusative case.

It has been proposed for Exp_{ACC} OE verbs that the Exp's accusative case is not structural but inherent (Belletti and Rizzi, 1988; Landau, 2010, a.o.). Because the accusative case is inherent, its licensing does not require the presence of a thematic external argument. However, as has often been pointed out, the Exp's accusative case of Polish OE verbs cannot be taken to be inherent (Biały, 2005; Bondaruk et al., 2017a,b; Żychliński, 2016, a.o.). The structural nature of the case of Exp_{ACC} can be demonstrated with the Genitive of Negation. In Polish, structural accusative case obligatorily turns into genitive under sentential negation (Błaszczak, 2001; Willim, 1990; Witkoś, 1998, a.o.). This is illustrated in (63).

(63) a. Tomek kupił **książkę**.
Tomek.NOM bought book.ACC
'Tomek bought a book.'

b. Tomek nie kupił **książki**.
Tomek.NOM not bought book.GEN
'Tomek did not buy a book.'

Crucially, we observe the same accusative-genitive case alternation in OE verbs with Exp_{ACC}, as in (64).

(64) a. Problemy rodzinne martwiły **Martę**.
problems.NOM of.family.GEN worried Marta.ACC
'Family problems worried Marta.'

b. Problemy rodzinne nie martwiły **Marty**.
problems.NOM of.family.GEN not worried Marta.GEN
'Family problems did not worry Marta.'

(Bondaruk et al., 2017a, 69, ex.37)

Thus, because the accusative case of Exp_{ACC} changes into genitive under sentential negation, it cannot be taken to be inherent. Under Burzio's Generalisation, in (62), the ability of an OE predicate to assign accusative must mean that the structure is not unaccusative. As pointed out by Bondaruk et al.: "[t]he structural nature of accusative case associated with Experiencers of stative OE verbs in Polish strongly argues against the treatment of Polish stative OE verbs as unaccusative" (Bondaruk et al., 2017a, 70).

Were the structure of Exp$_{ACC}$s non-unaccusative, we would expect that Exp$_{ACC}$s of OE verbs can act as passive subjects. However, as illustrated in (65) for a mental and physical state respecively, this is not the case.

(65) ***Kasia** jest martwiona przez problemy rodzinne.
Kasia.NOM is worried by problems family
Intended: 'Kasia is being worried by family problems.'

a. ***Kasia** jest mdlona.
Kasia.NOM is nauseated
Intended: 'Kasia is being nauseated.'

Moreover, although for a long time Burzio's Generalisation has been really influential in syntax, there is now substantial literature on its empirical as well as theoretical rationale which suggests that it might not be correct (Woolford, 2003, for useful references). As Woolford (2003, 301) notes:

> Perhaps the most surprising result that emerges from this subsequent literature [following Burzio's proposal] is a radical change in the view of the nature of the generalization. There is considerable consensus now that the problem has nothing to do with theta roles, nor with the ability of verbs to license accusative Case. Instead (and despite many obvious counterexamples), the generalization that much current work is attempting to explain is that the object gets nominative Case when there is no (nominative) subject.

It has been noted in the literature that the presence of an agent is neither necessary nor sufficient for accusative case assignment. For example, Mahajan (2000) shows that in Hindi, agentive ergative subjects can occur with nominative objects, as in (66).

(66) Ram-ne rotii khaayii thii. (Hindi)
Ram.ERG bread.F.NOM eat.F.PERF was.F
'Ram had eaten bread.'

(Mahajan, 1990, in Woolford, 2003, 301, ex. 5)

The example in (66) shows that the presence of an external/agentive subject is no guarantee for an accusative object, against Burzio's Generalisation. Similarly, Polish Exp$_{ACC}$ OE predicates, if unaccusative, show that the lack of an external argument must not block the licensing of accusative case.

Based on the recent discussion on the topic, a new descriptive generalisation has been proposed, as defined in Woolford (2003), in (67).

(67) **New Descriptive Generalization (replacing Burzio's 1986)**
The object gets nominative Case when there is no (nominative) subject
(Woolford, 2003, 301)

Crucially for the discussion on Polish Exp_{ACC} OE verbs as well as Exp_{DAT} OE verbs, the New Descriptive Generalisation accounts for both structures (when taken to be unaccusatives). In both types of OE verbs in Polish, the lack of a nominative subject necessitates the realisation of the nominative case feature on the Th object.[17] Following (67), the lack of a subject in [*Spec;VoiceP*] does not block the licensing of structural accusative. Instead, it necessitates the realisation of the nominative case, typically associated with the subject, on the object. Thus, (67) accounts for both Exp_{DAT} and Exp_{ACC} OE verbs in Polish. However, the question arises as to how the structural case is valued, if it is not associated with *Voice*/*v* head, as assumed in, e.g. Chomsky (1995); Holmberg and Platzack (1995) and following the traditional Burzio's Generalisation. We discuss our proposal in the section to follow.

4.2.4. Case valuation algorithm

The discussion thus far, both in this chapter as well as in Chapter 3 did not go into much detail as to how we take case to be assigned. Thus far, we only made it clear that we take the *App* head to be associated with the [Case:Dat], which is shared with the argument that is merged in or moved to [*SpecApplP*]. Discussing low applicatives in Chapter 3, we abstracted away from commenting on nominative or accusative case valuation.

Case valuation in Polish dative-accusative ditransitive contexts, discussed in Chapter 3 and illustrated in (68), can be nicely accounted for with the dependent case assignment algorithm, in (69), proposed in Baker (2015).

(68) Tomek wysłał Kasi list.
Tomek.NOM sent Kasia.DAT letter.ACC
'Tomek sent Kasia a letter.'

(69) **dependent case valuation algorithm (I)**

a. If NP_1 c-commands NP_2 and both are in the same domain, value NP_1's case as ergative.

[17] Careful readers might point out that Polish non-verbal Exp-Ths are not accounted for by the New Descriptive Generalisation. This is because the Th argument of non-verbal Exp-Ths is marked with genitive case rather than nominative. However, because the genitive case on the Th is lexical, it makes the Th argument invisible for any further case valuation under the Activity Condition. The Th in Exp-Ths receives nominative case, only when the Th is visible to syntax. Thus, the lack of nominative case on the Th argument in non-verbal Exp-Ths is due to other factors, i.e. the Activity Condition, and therefore it does not provide a counterexample to the New Descriptive Generalisation. We discuss the Activity Condition with regard to case valuation in more detail in the chapter to follow.

b. If NP_1 c-commands NP_2 and both are in the same domain value NP_2's case as accusative.

c. If NP has no other case feature, value its case as nominative/absolutive.

(Baker, 2015, 74, ex. 66)

The dative case, taken to be inherent, is valued first, by the head that licenses the dative-marked argument. Then, the direct object receives the dependent, i.e. accusative, case feature, as it is c-commanded by another DP within the same domain, which typically corresponds to a clause. The remaining DP, the subject, receives the nominative case by default.

Similarly, the case valuation algorithm proposed in Alexiadou et al. (2015); Schäfer (2008, 2012, 2016), as in (70), accounts nicely for ditransitive contexts in Polish.

(70) **dependent case assignment algorithm (II)**

a. A DP is realized at PF with dependent Case (ACC) if a different DP has valued the accessible phase head (Voice) via AGREE.

b. A DP that is not realized with dependent Case appears with default Case.

c. Inherent/lexical Case takes precedence over default and dependent Case.

(Schäfer, 2016, 7, ex. 12)

The dative case takes precedence over default and dependent case and it is valued first. The accusative case is valued on the direct object, as there is another DP, the subject, which values the ϕ-features of *Voice*.[18] Once accusative has been assigned, the only DP left with no case is the subject argument, which receives nominative by default.

Both case algorithms, I-II in (69)-(70), can account for ditransitive, dative-accusative contexts. However, both fail to account for case valuation in OE verbs in Polish. In the case of algorithm I, in (69), the assignment of accusative on Exp_{ACC} is not accounted for, because Exp is not c-commanded by any other argument - the Th argument is merged in a lower position. Algorithm II, in (70), does not account for case valuation in Exp_{ACC}-Th_{NOM} as the condition in (70a) is not met. Therefore, to account for case valuation in Polish, we propose the following case algorithm, which modifies algorithm II:

(71) **(non)agreeing case assignment algorithm (III)**

[18] Alexiadou et al. (2015); Schäfer (2016) assume that the *Voice* head is associated with unvalued ϕ-features, which are valued by the argument licensed in [*Spec;VoiceP*], i.e. the external argument.

a. Assign non-agreeing, ACC, case to a DP that does not establish *Agree* with *T*,

b. Assign agreeing, NOM, case to a DP that establishes *Agree* with *T*,

c. Inherent/lexical Case takes precedence over other cases.

   i. Inherent case is valued by a given functional head, e.g. *Appl*.

   ii. Lexical case is valued by the root.

We remain agnostic as to whether case valuation happens at PF or in syntax. Moreover, following the New Descriptive Generalisation, in (67), we dissociate accusative-feature valuation from external argument licensing, in contrast to (70a) of algorithm II. In algorithm III, we highlight the role of nominative case in establishing *Agree* with *T*. This accounts for the fact that *T* in Polish establishes *Agree* with a nominative-marked DP only, regardless of whether it is a subject or an object. Also, following Woolford (2006), we take non-structural case to come in two flavours - inherent and lexical. We take inherent case to be associated with a given functional head, e.g. *Appl*. Instead, lexical case is governed by the root.

Algorithm III accounts for case valuation in all the contexts discussed above, listed in (72).

(72) a. Subj_{NOM} - IO_{DAT} - DO_{ACC} (ditransitive)

b. Exp_{DAT} - Th_{NOM} (Exp_{DAT} verbal OE predicate)

c. Exp_{DAT} - Th_{GEN} (Exp_{DAT} non-verbal OE predicate)

d. Exp_{ACC} - Th_{NOM} (Exp_{ACC} OE verb)

In (72a), the inherent dative is valued first, received from the *App* head. The accusative is valued on the non-agreeing object DP, while the nominative case is a by-product of *Agree* between the subject and *T*. In (72b), the experiencer's dative is valued first by the high applicative head that licenses this argument. The nominative on the Th is a result of *Agree* between the Th and *T*. In case of non-verbal Exp-Ths, in (72c), the genitive case on the Th is lexical and therefore valued by the root. The dative of the Exp is valued by *Appl*. Non-verbal Exp-Ths license no nominative-marked arguments and therefore, as expected from algorithm III, *T* does not agree with any of the DPs and thus it receives default features. In the case of Exp_{ACC} OE verbs, in (72d), the agreeing DP, the Th, receives nominative, while the non-agreeing DP, the Exp, receives accusative case.

4.3. Conclusions

In this chapter we focused on Polish high applicatives, which we illustrated with dative-marked experiencers of the Exp-Th construction. In **Section 4.1.1**, we have demonstrated that the Exp argument is verb-external, while the Th argument is verb-internal. This was argued on the basis of two diagnostics: extraction and the licensing of distributive *po*-phrases. We proposed that the Exp argument is applicative in nature. Using the applicative diagnostics introduced in Chapter 2, we demonstrated that the Exp is a high applicative. This is because Exps can act as anaphor antecedents (as long as anaphor binding is not blocked byt the AAE). Exps can control adjunctive participial clauses and they can also be modified by secondary depictives.

In **Section 4.1.2**, we further developed the idea of Exps as high applicatives by demonstrating evidence against analysing Exps as merged in [*Spec;vP/Spec;VoiceP*]. Anaphor binding, control into adjunctive participial clauses and secondary depictive predication, which we take to be characteristic features of high applicatives, could as well be associated with [*Spec;vP*] projection. In fact, many recent analyses propose that Exp$_{DAT}$s in Polish are merged in [*Spec;vP*]. However, if Exp$_{DAT}$s are merged in [*Spec;vP*], the Exp-Th construction cannot be taken to be unaccusative. Nevertheless, there are reasons to believe that Exp-Ths are unaccusative, as in fact expected from traditional analyses of OE verbs of Class III. The fact that Exp-Ths do not show eventive passives or form the *-no-/to* construction indicates that their structure lacks the *Voice* projection. The same is indicated by distributive *po*-phrases, which provide even stronger evidence for the lack of *Voice*.

Section 4.2 discussed the arguments presented in Bondaruk and Rozwadowska (2018) against the applicative status of Polish Exp$_{DAT}$s. We indicated that the authors' arguments are not strong enough for the applicative analysis to be rejected, especially in the light of the alternative proposed by the authors, which takes Exp$_{DAT}$s to be in [*Spec;vP*]. Having argued that Exp-Ths are unaccusative, we take [*Spec;vP/VoiceP*] to be missing from their structure, and therefore we reject the author's alternative and take Exp$_{DAT}$s to be in a high [*Spec;ApplP*] position.

In **Section 4.2.1**, we presented our analysis of Exp$_{DAT}$s in more detail. By taking Exp$_{DAT}$s to be high applicatives, we accounted for their subject-like characteristics, highlighting at the same time that they differ from prototypical subjects. Also, because we rejected the [*Spec;vP/VoiceP*]-analysis of the Exp's projection, we were able to account for the unaccusative character of the Exp-Th predicate. The last **Section, 4.2.2**, of this chapter focused on the two

(main) possible orders of Exp-Ths, DAT-NOM and NOM-DAT. We argued that in discourse-neutral contexts, the preverbal Exp is merged in [*Spec;ApplP*] and the preverbal Th is moved from its base-generated position to [*Spec;TP*]. Both arguments of Exp-Ths can move to [*Spec;CP*] when they are discourse-marked. We supported our analysis with binding phenomena. In **Section 4.2.3**, we briefly commented on the difference between Exp$_{DAT}$s and Exp$_{ACC}$s. In **Section 4.2.4**, we proposed a case valuation algorithm, accounting for case valuation in Exp-Ths and ditransitives.

This chapter closes Part II of this thesis. In what follows, we focus on a bigger picture, and we explore in more detail the hypothesis which we introduced at the end of Chapter 1. Namely, we will discuss the cross-linguistic split of applicative arguments into those that are *vP*-internal and those that are *vP*-external. We illustrate the two types with Icelandic and Polish, respectively. We present some differentiating properties of these two types of applicatives based on A-movement in passives and Exp-Ths.

Part III.

The bigger picture and closing remarks

5. Applicatives and A-movement

In Part I, Chapter 2, we hypothesised that cross-linguistically, applicative arguments split into two types. Applicatives can merge within *vP* (*vP*-internal), or they can be part of *ApplP* (*vP*-external or *ApplP*-internal). The *v* head licenses *vP*-internal applicatives. The *Appl* head licenses *vP*-external applicatives. Thus, the maximal projection of *vP*-internal applicatives is that of *vP*. The maximal projection of *vP*-external applicatives is that of *ApplP*. Briefly in Chapter 1, and more extensively in Chapters 3 and 4, we demonstrated that Polish dative-marked DPs do not behave like typical verb-internal arguments. Based on that, we assumed that if Polish has arguments of the applicative type, they should be analysed as projected within *ApplP*, not as part of a verb phrase. With this assumption, in Part II of the thesis, we analysed Polish dative-marked DPs as arguments licensed by the *Appl* head. We argued that there are two types of applied arguments in Polish, high and low. In Chapter 3, we illustrated low applicatives with indirect objects of the dative-accusative construction. In Chapter 4, we illustrated high applicatives with dative-marked experiencers of psychological verbs.

This chapter opens Part III of this thesis, which frames the study as a whole. We return to the hypothesis that applicative arguments split into *vP*-internal and *ApplP*-internal. We show that these two types of applicatives are predicted to behave differently with regard to A-movement. More precisely, applicatives licensed as part of a *vP* are expected to behave like typical internal arguments. For example, as we demonstrate in the section to follow, *vP*-internal applicatives can passivise. This is in contrast to *vP*-external applicatives, which do not resemble internal arguments in that they cannot move to [*Spec;TP*] under passivisation. We illustrate this with passives in Polish as opposed to Icelandic. We demonstrate that under our hypothesis, Polish applicatives appear to be *ApplP*-internal while Icelandic applicatives appear to be *vP*-internal. Because a detailed analysis of cross-linguistic differences is outside the scope of this thesis, in this chapter, we abstract away from languages that license prototypical applicatives. Moreover, this chapter does not address English ditransitives, discussed in Chapter 3. However, one can extend the analysis of Icelandic ditransitives to English. This is because the ditransitives of both Icelandic and

English show the same, i.e. small clause, structure (Collins and Thráinsson, 1996; Ottósson, 1991).

The discussion in this chapter is organised as follows. In **Section 5.1**, we examine the predictions of the *vP*-internal vs. *vP*-external split among applicatives concerning passivisation. We briefly introduce passivisation (a)symmetries in **Section 5.1.1** and their previous accounts in **Section 5.1.3**. In **Section 5.1.4**, we introduce Phase Theory under the theory of applicatives. We indicate that high *Appl* heads are typically taken to constitute phases. In contrast, low applicatives of Pylkkänen's (2002, 2008) type are not considered phases. We demonstrate that under the *vP*/*Appl*-internal split among applicatives, there is no need to assume that *Appl* heads are phases.

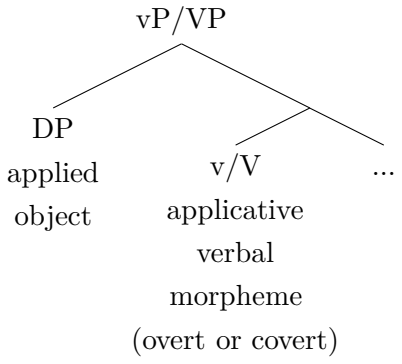
We propose in **Section 5.1.4** that verbal applicative heads (i.e. those that license *vP*-internal applicatives) are phases, while *Appl* heads are not. We illustrate this difference and its consequences for A-movement in passivisation based on Polish and Icelandic data. In **Section 5.1.5** we show that due to the *ApplP*-internal nature of Polish applicatives, Polish IOs do not passivise. As demonstrated in **Section 5.1.6**, Icelandic applicatives differ from Polish in that they are *vP*-internal and able to passivise. Moreover, we suggest that Polish IOs differ from Icelandic IOs in that under the *Activity Condition*, they are syntactically inactive.

In **Section 5.2**, we extend our analysis of passives to (a)symmetries in A-movement in Exp-Th constructions in Polish and Icelandic. In **Section 5.2.2**, we show that similarly to IOs, Polish Exp$_{DAT}$s do not passivise. We take it to be due to their *ApplP*-internal nature and syntactic inactivity under the *Activity Condition*. As demonstrated in **Section 5.2.3**, Icelandic Exp$_{DAT}$s are *vP*-internal and syntactically active, which makes them liable targets for movement to [*Spec;TP*].

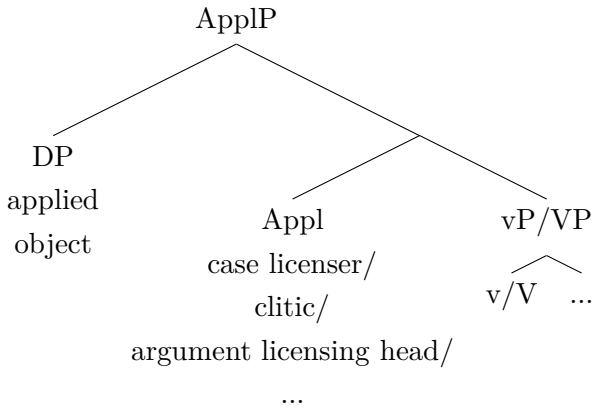
5.1. A-movement in ditransitive passives

Concluding the discussion in Chapter 2, we hypothesised that applicative arguments split into *vP*-internal and *vP*-external ones. We proposed that the maximal projection of *vP*-internal applicatives is that of *vP*. The maximal projection of *vP*-external, or *ApplP*-internal, applicatives is that of *ApplP*. This is illustrated in (1).

(1) a. ***vP*-internal applicative**



b. ***vP/VP*-external applicative**



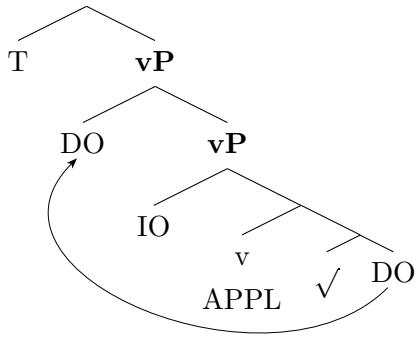
Depending on the type of the applied argument as well as the architecture of grammar assumed, *vP*-internal applicatives are licensed by *v/V*, i.e. a verbal head.[1] In contrast, *vP*-external applicatives are licensed by the *Appl* head, i.e. a non-verbal head. Thus, we take it that some applicative heads are verbal, and some are not.

As we demonstrate in the discussion to follow, *vP*-internal applicatives are like typical internal arguments, i.e. they passivise. In contrast, *vP*-external applicatives do not resemble internal arguments in that they cannot passivise. What is more, we show that the difference in the maximal projection of the applicative licensing head has serious consequences for A-movement under Phase Theory (Chomsky, 1999, et seq.). Namely, if we assume that: a) the *v* head con-

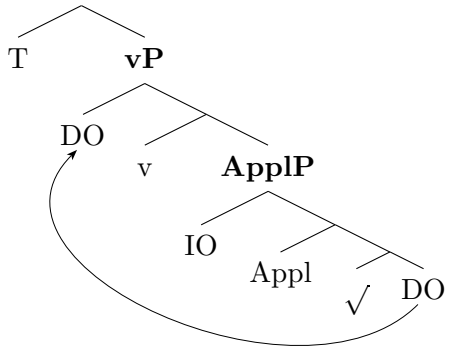
[1]Note that because we assume that verbs decompose into a root and a categorising head, *v*, we call applicatives licensed by verbal applicative heads *vP*-internal. However, under the *VP*-shell hypothesis (Larson, 1988, 1990, et seq.), we should, more precisely, call low applicatives *VP*-internal. For example, as discussed in more detail in Section 5.1.6, we call the indirect object of a small clause ditransitive in Icelandic a *vP*-internal applicative. Under the Larsonian verb architecture, it would be more precise to call the indirect object a *VP*-internal applicative.

stitutes a phase (Chomsky, 1999, 2001, et seq.), and that b) multiple specifiers of the same head are equidistant from a c-commanding head that triggers movement (Chomsky, 1995, e.g.), then c) only *vP*-internal applicatives will establish equidistance from *T* with the object moved to the phase edge. *ApplP*-internal argument and the object in [*Spec;vP*] will not establish equidistance from *T*. (2) illustrates the difference.

(2) a. **equidistance**



b. **no equidistance**



In (2a), the direct object (DO) is attracted to move to the phase edge, [*Spec;vP*], dislocating to the position right above the *vP*-internal applicative, i.e. the indirect object (IO). Once the DO has moved, the objects are in specifier positions of the same head, *v*. Thus, the objects become equidistant from *T*. As a result, either of the objects can passivise. In contrast, in (2b), the DO and IO are not equidistant, as each object is in the specifier position of a different head. Thus, in (2b), it is only the closest target, the DO in [*Spec;vP*], which can further move to [*Spec;TP*]. Thus, only the DO can passivise in (2b).

In the discussion to follow, we illustrate the difference between *vP*-internal and *vP*-external applicatives concerning equidistance based on passivisation of ditransitives in Polish as opposed to Icelandic. Moreover, we propose that we

can do away with the stipulative assumption as to the phasehood of *Appl* heads (Citko, 2011, 2014; Jeong, 2007; Lee, 2005; McGinnis, 2001, 2002, a.o.). In our analysis, it suffices to follow the standard assumption as to the phase character of *v*. We split heads that license applicative arguments into two, *v* and *Appl*. We show that only applicative *v* heads constitute phases. Thus, applicative licensing heads that cannot attract movement to their outer specifier are predicted to be *ApplP*-internal.

5.1.1. Passivisation asymmetries in ditransitives

Cross-linguistically, and in some cases even intra-linguistically, ditransitives show an asymmetry, where some languages/language varieties allow only one of the objects to passivise, while others allow either of the objects to move to [*Spec;TP*]. Languages in which only one object allows passivisation, i.e. behaves like a prototypical direct object, are often referred to as **asymmetric passive languages**. Languages in which both objects can passivise are called **symmetric passive languages** (Alsina and Mchombo, 1993; Anagnostopoulou, 2003; Baker, 1988b; Bresnan and Moshi, 1993; Citko, 2011, 2014; Haddican, 2019; Lee, 2005; Marantz, 1993; McGinnis, 2001; Woolford, 1993, a.o.).

Some asymmetric languages include, e.g. American English, Polish, Chichewa, or Danish. The Danish and Polish examples in (3) illustrate asymmetric passives.

(3) a. **Jens** blev givet bogen. (Danish)
Jens was given book.the
'Jens was given the book.'

b. *__Bogen__ blev given Jens. (Danish)
book.the was given Jens
'The book was given to Jens.'

(Holmberg and Platzack, 1995, 215, ex. 7.68)

(4) a. **Han** blev tilbudt en stilling.
he was offered a job
'He was offered a job.'

b. *__En stilling__ blev tilbut ham.
a job was offered him
Intended: 'A job was offered to him.'

(McGinnis, 1998, 73, ex. 24)

(5) a. *__Jan__ został dany książkę. (Polish)
Jan.NOM became given book.ACC
Intended: 'Jan was given a book.'

b. **Książka** została dana Janowi.
book.NOM became given Jan.DAT
'A book was given to Jan.'

In Danish, similarly to American English and Chichewa, it is the IO that passivises. In Polish, it is typically the DO that passivises.[2] Asymmetric passives allow only one of the objects to become the passive subject.

Symmetric languages include, e.g. some varieties of British English, Norwegian, Swedish (with restrictions), Kichaga. Examples in (6) illustrate a symmetric passive in Norwegian, where either of the objects can be passivised.

(6) a. **Jon** ble gitt boken. (Norwegian)
Jon was given book.the
'Jon was given the book.'

b. **Boken** ble gitt Jon.
book.the was given Jon
'The book was given Jon.'

(Holmberg and Platzack, 1995, 215, ex. 7.69)

(7) **Han**$_i$ ble gitt e_i en gave. (Norwegian)
he was given a present
'He was given a present.'

a. **En gave**$_i$ ble gitt ham e_i.
a present was given him
'A present was given to him.

(Hestvik, 1986, 185, ex. 6b, 6c)

Additionally, some languages, e.g. Icelandic, show both symmetric and asymmetric passives, depending on the predicate. For Icelandic verbs with dative-marked IOs and accusative-marked DOs, either of the objects can passivise (Holmberg and Platzack, 1995; Zaenen et al., 1990, a.o.). This is illustrated in (8) and (9).

(8) a. **Jóni** voru gefnar bækur. (Icelandic)
Jón.DAT were given books.NOM
'Jón was given books.'

b. **Bækurnar** voru gefnar Jóni.
books.the.NOM were given Jón.DAT
'The books were given to Jón.'

(Holmberg and Platzack, 1995, 215, ex. 7.67a,b)

[2] As we discuss later in this chapter, some exceptions exist. Namely, accusative-marked IOs can passivise in Polish. However, even in this case, it is only one object that can become a passive subject. In Polish, if the IO passivises, the DO cannot do so. If the DO passivises, the IO cannot do so.

(9) a. **Konunginum** voru gefnar ambáttir.
king.the.DAT were given slaves.NOM.PL
'The king was given maidservants.

b. **Ambáttin** var gefin konunginum.
slave.the.NOM.SG was given king.the.DAT
'The maidservant was given to the king.'

(Zaenen et al., 1990, 112, ex. 44)

In (8) and (9), either of the objects can become a passive subject. The DO, with structural accusative, changes its case to nominative under passivisation, as in (8b) and (9b) The dative-marked IO retains its inherent dative case even when it becomes a passive subject, as in (8a) and (9a). That Icelandic non-nominative arguments, including passivised IOs, can act as subjects has long been established in the literature, starting with Andrews (1976, 1982a, 1990), developing through (Jónsson, 1996; Sigurðsson, 1989; Thráinsson, 1979; Zaenen et al., 1990, a.o.), and later adopted by, e.g. Holmberg and Platzack (1995); McFadden (2004). We discuss some of the arguments for the subjecthood status of passivised dative IOs in Icelandic in the section to follow.

In Icelandic passives with dative-marked subjects, the retained object is marked with nominative. This is illustrated in (8a) and (9a). These examples also further support our discussion at the end of Chapter 4 where we replaced Burzio's Generalisation (Burzio, 1986) with the New Descriptive Generalisation (Woolford, 2003), repeated for convenience in (10).

(10) **New Descriptive Generalisation (replacing Burzio's 1986)**
The object gets nominative Case when there is no (nominative) subject
(Woolford, 2003, 301)

Because the inherent dative of the IO is preserved when the IO becomes the passive subject, the retained object of the passive construction receives nominative. Note also that, similarly to Polish, Icelandic verbs tend to agree with nominative-marked arguments regardless of their grammatical function (Thráinsson, 2007; Zaenen et al., 1990, e.g.). Thus, in (11), the verb agrees with the nominative-marked *bækur* 'books' - in (11a) with the object, in (11b) with the passive subject. The same is true of (9), where the verb agrees with the DO in (9a) and the passivised subject in (9b).

In contrast to dative-accusative ditransitives, which allow either of the objects to passivise, Icelandic dative-dative ditransitives allow only the IO to become the subject of a passive. In (11), the verb *að skila* 'to return' marks both of its objects with dative case. Such 'double dative' predicates are not very common in Icelandic; however, Jónsson (2000, 94) records around 30 of such verbs, including, e.g. *að blóta* 'to sacrifice', *að heita* 'to promise', *að miðla* 'to communicate',

að redda 'to get, fix', *að skila* 'to return', *að slaka* 'to pass', *að úthluta* 'to distribute, award', *að spá* 'to predict', *að valda* 'to cause'. With these predicates, only the IO can be passivised, as in (11a), not the DO, as in (11b).

(11) a. **Jóni** var skilað bókunum. (Icelandic)
Jón.DAT was returned books.the.DAT
'Jón was returned the books.'

b. ***Bókunum** var skilað Jóni.
books.the.DAT was returned Jón.DAT
Intended: 'The books were returned to Jón.'

(Holmberg and Platzack, 1995, 215, ex. 7.67c,d)

Similarly to passive dative subjects of dative-accusative ditransitives, passive dative subjects of dative-dative predicates are bona fide subjects. Focusing on the more productive dative-accusative predicates, we demonstrate their subjecthood in the section to follow. Note also that in contrast to dative-accusative predicates, which realise the retained object in passives with nominative, the retained object of dative-dative predicates is marked with dative. The dative case is preserved due to its lexical character. Only structurally case-marked, i.e. accusative, objects get nominative in passives with dative subjects. Thus, the examples in (11) do not provide counterexamples to (10). Also, because no nominative-marked argument is present, the verb in (11) receives default third person features.

(A)symmetries similar to those listed in (3)-(11) also appear in languages with prototypical applicatives, i.e. languages which overtly mark their verbs with applicative suffixes. In these languages, we distinguish between **asymmetric applicatives** and **symmetric applicatives** (e.g. Alsina and Mchombo, 1993; Bresnan and Moshi, 1993). In asymmetric applicatives, only the applied object shows true object properties, e.g. passivises, object agreement, or incorporation into the verb. In contrast, in symmetric applicatives either object, applicative or non-applicative, can passivise or agree with the verb. For example, in Kichaga, in (12), any of the objects of the applicative construction can passivise. In Chichewa, in (13), only the applied object can passivise.

(12) a. **M̀-kà** n-ā́-ī́-lyì-í-ò k-ély-â. (Kichaga)
1-wife FOC-1S-PR-eat-AP-PAS 7-food
'The wife is being benefited/adversely affected by someone eating the food.'

b. **K-élyá** k-ī́-lyì-í-ó m̀-kà.
7-food 7s-PR-eat-AP-PAS 1-wife
'The food is being eaten for/on the wife.'

(Bresnan and Moshi, 1993, 50-51, ex. 5)

(13) a. **Atskíkāna** a-na-gúl-ír-idw-á mphâtso (ndí chítsîru)
2-girls 2S-PST-buy-AP-PAS-FV 9-gift by 7-fool
(Chichewa)

'The two girls were bought a gift (by a fool).'

b. ***Mphâsto** i-na-gúl-ír-idw-á átsíkāna (ndí chítsîru).
9-gift 9S-PST-buy-AP-PAS-FV 2-girls by 7-fool
Intended: 'A gift was bought for two girls by a fool.'

(Alsina and Mchombo, 1993, 23, ex. 7)

Summing up, cross-linguistically, we observe differences in the syntactic behaviour of various types of objects. Some objects are more prototypical in that they allow passivisation/A-movement. In contrast, some objects disallow A-movement. Multiple syntactic accounts for this asymmetry have been proposed over time; we discuss some briefly in Section 5.1.3. However, before we turn to accounts of (a)symmetries in passives, we show evidence that Polish dative IOs differ from Icelandic dative IOs with regard to passivisation in that Polish dative IOs cannot passivise while Icelandic dative IOs can.

5.1.2. Passives: Icelandic IOs vs. Polish IOs

In the previous section, we indicated that Polish dative IOs cannot passivise while Icelandic dative IOs can. Thus in (14), the Icelandic preverbal dative is a true subject, while the Polish dative IO is a dislocated object.

(14) a. **Jóni** voru gefnar bækur.
Jón.DAT were given books.NOM
'John was given books.'

b. **Janowi** zostały dane książki.
Jan.DAT become given books.NOM
'To Jan were given books.'

In generative work on Icelandic, it was noted fairly early that certain non-nominative DPs appear syntactically to be more like subjects when compared to similar elements in other languages. Starting with Andrews (1976, 1982b, 1990), developed through Thráinsson (1979) and later through (Jónsson, 1996; Sigurðsson, 1989; Zaenen et al., 1990, a.o.), it has been established that Icelandic non-nominative subjects behave like nominative subjects in almost every way except for subject-verb agreement.

Various subjecthood tests have been proposed for Icelandic (Andrews, 1976, 1982a,b, 1990; Maling, 1990; Sigurðsson, 1989, 2004; Thráinsson, 1979; Zaenen, 1980; Zaenen et al., 1990, a.o.). Andrews (1976) was the first one to note that syntactically, there is no difference between the behaviour of nominative and non-nominative subjects in Icelandic, and that non-nominative subjects in Icelandic should be analysed as bona fide subjects. Andrew's tests for subjecthood have been later developed and added to. For example, Sigurðsson (1989) lists 11 such tests while Sigurðsson (1997) records even 16 such tests. In the following, we briefly discuss selected tests proposed in the seminal work of Zaenen et al. (1990), where the authors propose the following tests: 1) exceptional case marking, 2) reflexivisation, 3) topicalisation and subject-verb inversion, 4) *wh*-extraction from subject-initial V2 clauses, 5) indefinite-subject postposing, 6) subject ellipsis under coordination, and 7) control. Crucially, dative-marked passive subjects pass all these tests, supporting a subject analysis of these elements. Below, we briefly discuss raising, reflexivisation and indefinite subject postposing.

In Icelandic, exceptionally case-marking (ECM) verbs such as, e.g. *að telja* 'to believe', can assign case to subjects of infinitival subordinate clauses, as in (15).

(15) a. **Guðrún** saknar Halardar.
Guðrún.NOM misses Harold.GEN
'Guðrún misses Harold.'

b. Ég taldi **Guðrúnu** í barnaskap mínum sakna Haraldar.
I believed Guðrún in foolishness my to.miss Harald.GEN
'I believed Guðrún in my foolishness to miss Harold.'

(Zaenen et al., 1990, 100, ex. 14a-b)

In (15b), the subject of the infinitival clause moves to the main clause and receives accusative case from the main verb. That the subject moves to the object position of the main clause is demonstrated with the addition of *í barnaskap mínum* 'in my foolishness', an adverbial which modifies the verb of the main clause. Because the adverbial occurs between *Guðrúnu* and the infinitive complement *sakna Haraladar* 'to miss Harald', it provides evidence that *Guðrúnu* has been raised to the matrix object position (Thráinsson, 1979; Zaenen et al., 1990).

As illustrated in (16b), such raising to the matrix object position is not possible for objects, even though, as illustrated in (16a), the object can be moved to a preverbal position, from where it could potentially move up to the matrix clause.

(16) a. **Haraldar** saknar Guðrún.
Harold.GEN misses Guðrún.NOM
'Harold, Guðrún misses.'

b. *Ég taldi **Haraldar /Harald** sakna Guðrún/
I.NOM believed Harold.GEN Harold.ACC to.miss Guðrún.NOM
Guðrúnu.
Guðrúnu.ACC
Intended: 'I believed Harold to miss Guðrún.'

(Zaenen et al., 1990, 100, ex. 14c-d)

Movement of the object of a subordinate clause to the matrix object position is impossible, regardless of whether the lexical genitive case of the object is preserved, or changed to accusative. Only subjects can raise to the matrix object position.

As demonstrated in (17), both the passivised dative IO and the passivised accusative DO can appear as the complement of an ECM-verb.

(17) a. Ég tel **konunginum** hafa verið gefnar ambáttir.
I believe king.the.DAT have been given slaves.NOM
'I believe the maidservant to have been given to the king.'

b. Ég tel **ambáttina** hafa verið gefna konunginum.
I believe slave.the.ACC have been given king.the.DAT
'I believe the maidservant to have been given to the king.'

(Zaenen et al., 1990, 112, ex. 45)

The DO of *að telja* 'to believe' takes accusative case, as in (17b). However, just like the dative IO preserves its dative case under passivisation, the dative case is also preserved under ECM, as in (17a).

Another test draws on the reflexive pronoun *sig* 'self's'. Similarly to Polish, Icelandic pronouns can be divided into reflexive and non-reflexive. In general terms, only subjects can antecede reflexives.

(18) a. **Sigga**$_i$ barði mig með dúkkunni **sinni**$_i$ /*hennar$_i$.
Sigga.NOM hit me.ACC with doll.the.DAT self's.DAT /her.GEN
'Sigga hit me with her doll.'

b. Ég barði **Siggu**$_i$ með dúkkunni hennar$_i$ /***sinni**$_i$.
I.NOM hit Sigga.ACC with doll.the.DAT her.GEN /self's.DAT.
'I hit Sigga with her doll.'

c. **Siggu**$_i$ barði ég með dúkkunni hennar$_i$ /***sinni**$_i$.
Sigga.ACC hit I.NOM with doll.the.DAT her.GEN /self's.DAT
'Sigga, I hit with her doll.'

(Zaenen et al., 1990, 101, ex. 17)

As illustrated in (18), only the subject can antecede the reflexive possessive *sinni*, as in (18a). A direct object in situ, as in (18b), can antecede a pronoun only. Dislocation of the object to a preverbal position, as in (18c), does not make the object a licit anaphor antecedent.

With regard to reflexivisation, passive subjects can act as anaphor antecedents just like bona fide subjects. This is true regardless of the case of the subject, nominative or dative. This is illustrated with (19).

(19) a. **Konunginum**$_i$ voru gefnar ambáttir í höll **sinni**$_i$.
king.the.DAT were given slaves in palace self's.DAT
'The king was given maidservants in his palace.'

b. **Ambátinn** var gefin konunginum vegna fegurðar
slave.the.NOM was given king.the.DAT because.of beauty.GEN
sinnar$_i$.
her.GEN
'The maidservant was given to the king because of her beauty.'

(Zaenen et al., 1990, 112, ex. 46)

In (19a), the passive dative-marked subject acts as a licit anaphor antecedent. The same is true of the passivised DO in (19b). The examples in (19) show that both the IO and the DO are licit passive subjects.

The third, but by far not the last, diagnostic for subjecthood for Icelandic is that of indefinite subject postposing. In Icelandic, indefinite subjects can be postposed and placed after the finite verb/auxiliary in contexts where the subject position is filled by the expletive þ*að* 'there', as in (20).

(20) a. Það hefur þ**jófur** stolið hjólinu mínu.
there has thief stole bicycle.the.DAT mine.DAT
'A thief has stolen my bicycle.'

b. **Hjóli** hefur þjófurinn stolið.
bike.DAT has thief.the.NOM stolen
'A bike, the thief has stolen.'

c. *Það hefur **hjóli** þjófurinn stolið.
there has bike.DAT thief.the.NOM stolen
Intended: 'There has a bike the thief stolen.'

d. *Það hefur **hjóli** stolið þjófurinn.
there has bike.DAT stolen thief.the.NOM
Intended: 'There has a bike stolen the thief.'

(Zaenen et al., 1990, 104, ex. 24)

When a subject is indefinite, it can be postposed by a rule of indefinite nominal postposing combined with the expletive insertion. This is illustrated in (20a). In (20b), an indefinite object has been topicalised and moved to a preverbal

position. As demonstrated in (20c) and (20d), such indefinite topicalised object cannot occur in the postverbal position with the expletive *það*. This is regardless of the position of the subject of the sentence, whether preparticipial, as in (20c), or postparticipial, as in (20d). Only subjects can be projected below the expletive and main verb.

The indefinite subject postposing diagnostics shows that passive subjects, whether corresponding to accusative DO or dative IO in the active voice, can both occur in the indefinite subject position.

(21) a. Það voru **konungi** gefnar ambáttir í vetur.
there was king.DAT given slaves.NOM in winter
'There was a king given maidservants this winter.

b. Það var **ambátt** gefin konunginum í vetur.
thee was servant.NOM given king.the.DAT in winter
'There was a maidservant given to the king last winter.'

(Zaenen et al., 1990, 113, ex. 50)

Both objects, when passivised, can project below the expletive and main verb, which indicates they are true subjects. For other arguments for the subjecthood status of Icelandic dative IO under passivisation, we refer the the extensive literature on the subjecthood of non-nominative arguments in Icelandic. Crucially, for the discussion to follow, the true passivisation of dative IOs in Icelandic has no Polish equivalent. Namely, Polish dative IOs cannot passivise.

Out of the three subjecthood diagnostics for Icelandic, discussed above, only the reflexivisation test can be applied to Polish. Both the ECM-construction and the postposed indefinite subject construction do not exist in Polish. However, reflexivisation belongs to one of the most prominent subjecthood diagnostics (Bondaruk and Rozwadowska, 2018; Bondaruk and Szymanek, 2007; Dyła, 1981; Dziwirek, 1994; Willim, 2018, a.o.). In general, Polish external arguments, subjects and high applicatives, can antecede anaphors. Objects can antecede pronouns only. This is illustrated in (22).

(22) a. **Ewa**$_i$ uderzyła mnie **swoją**$_i$ /*jej$_i$ lalką.
Ewa.NOM hit me.ACC self's.INSTR her.GEN doll.INSTR
'Ewa hit me with her doll.'

b. Uderzyłem **Ewę**$_i$ ***swoją**$_i$ /jej$_i$ lalką.
I.hit Ewa.DAT self's.INSTR her.GEN doll.INSTR
'I hit Ewa with her doll.'

c. **Ewę**$_i$ uderzyłem ***swoją**$_i$ /jej$_i$ lalką.
Ewa.ACC I.hit self's.INSTR her.GEN doll.INSTR
'Ewa, I hit with her doll.'

Similarly to Icelandic, in (22), only the nominative subject can act as a licit anaphor binder, as in (22a). The accusative DO can antecede pronouns only. This is regardless of whether the DO is in situ, as in (22b), or topicalised, as in (22c).

We have established that in Icelandic, dative IOs can become true subjects under passivisation. This is not the case for Polish - a preverbal dative in passive constructions, as in (14b), is a topicalised IO; the passive subject of the sentence is *książki* 'books'. We support this analysis with binding. Consider (23).

(23) a. **Książki**$_i$ zostały dane Janowi w **swoich**$_i$ /*ich
books.NOM became given Jan.DAT in self's.LOC their.GEN
oryginalnych obwolutach.
original covers
'The books were given to Jan in their original dust covers.'

b. **Janowi**$_i$ zostały dane ***swoje**$_i$ /jego$_i$ książki.
Jan.DAT become given slef's.NOM his.GEN books.NOM
'Jan was given his books.'

Only the preverbal argument in (23a) is a true passive subject, as only it can act as a licit anaphor antecedent. The preverbal dative argument in (23b) is a topicalised IO, not a true passive subject. As discussed in Chapter 3, Polish IOs cannot antecede anaphors when they are in situ. If dative IOs could move, by A-movement, to [*Spec;TP*] under passivisation, we would expect them to become licit anaphor antecedents, contrary to the facts.

A second argument against the subjecthood of Polish preverbal dative arguments in passive contexts comes from PRO control. In Polish infinitival control constructions, the controlled element must be in a subject position (Bondaruk and Rozwadowska, 2018; Bondaruk and Szymanek, 2007; Dziwirek, 1994, e.g.). PRO cannot be an object or any other argument of the predicate in the embedded infinitival clause. Thus, if we can replace a given argument with PRO of an embedded infinitival clause, this argument can be taken to be a true subject. Consider (24).

(24) a. Jan kocha Ewę.
Jan.NOM lovers Ewa.NOM
'Jan loves Ewa.'

b. **Jan**$_i$ chce [**PRO**$_i$ kochać Ewę].
Jan.NOM wants to.love Ewa.ACC
'Jan wants to love Ewa.'

True passive subjects can be replaced by PRO and they can be controlled by the subject of the matrix clause. This is illustrated in (25b).

(25) a. Ewa jest kochana przez Jana.
Ewa.NOM is loved by Jan
'Ewa is loved by Jan.'

b. **Ewa**$_i$ chce [**PRO**$_i$ być kochana przez Jana].
Ewa wants to.be loved by Jan
'Ewa wants to be loved by Jan.'

In passives of Polish dative-accusative constructions, it is only the passivised accusative object that can be replaced by PRO and controlled by the matrix clause subject. This is true even if the dative IO is moved to a preverbal position. Consider (26).

(26) a. Jan pokazał Tomkowi Ewę.
Jan.NOM showed Tomek.DAT Ewa.ACC
'Jan showed Tomek to Ewa.'

b. Ewa została pokazana Tomkowi.
Ewa.NOM became shown Tomek.DAT
'Ewa was shown to Tomek.'

c. **Ewa**$_i$ chce [**PRO**$_i$ zostać pokazana Tomkowi].
Ewa.NOM wants to.become shown Tomek.DAT
'Ewa wants to be shown to Tomek.'

d. Tomkowi została pokazana Ewa.
Tomek.DAT became shown Ewa.NOM
'Tomek was shown Ewa.'

e. *__Tomkowi__$_i$ chce [**PRO**$_i$ zostać pokazana Ewa].
Tomek.DAT wants to.become shown Ewa.NOM
Intended: 'Tomek wants to be shown Ewa.'

(26) illustrates the dative-accusative ditransitive *pokazać* 'to show' in the active voice. In (26a), we illustrate the passive voice, where the accusative DO becomes the passive subject. That the DO becomes a true subject under passivisation is illustrated in (26c). In this example, we see that the matrix clause subject can control the PRO that replaces the subject of the passive, here the passivised accusative DO. The example in (26d) does not illustrate a passive subject marked with dative case. Rather, (26d) shows a passive construction with a topicalised dative IO. That the preverbal dative argument is not the passive subject is demonstrated with PRO control in (26e). This example demonstrates that the preverbal dative IO cannot control the PRO which replaces the dative IO in the subordinate infinitival clause. This shows that the dative IO cannot be in a subject position. We take (26e) to further support that while Polish accusative DOs become true passive subjects, dative IOs cannot passivise.

Other subjecthood tests proposed for Polish, e.g. the licensing of secondary predicates are sensitive to the presence of implicit agents in passives. Therefore,

these tests are not reliable in the contexts of the current discussion. Nevertheless, we take anaphor binding and the control of PRO of infinitival subordinate clauses to be strong arguments against the subjecthood status of preverbal dative IO in passive constructions. This, as demonstrated in this section is in contrast to Icelandic dative IOs, which can become true passive subjects. In what follows, we account for this difference. However, before we do lay out our analysis, we briefly discuss some previous accounts of (a)symmetries in passivisation.

5.1.3. Previous accounts of asymmetries in passivisation

Under Government and Binding (GB), asymmetries in passives were taken to stem from the violation of the Case Filter (Baker, 1988b; Larson, 1988, e.g.). Thus, in GB, the reason why (27c) is ungrammatical is the lack of case valuation on the recipient argument.

(27) a. John gave Mary a book.
b. Mary was given a book.
c. *A book was given Mary.

Recently, locality-based accounts emerged, explaining the ungrammaticality of (27c) with a locality constraint on A-movement, (28). Under (28), the theme cannot move to [*Spec;TP*] because a higher argument (goal/recipient), placed closer to *T*, blocks the movement of the theme.

(28) **Shortest Move/Closest Attract**
K attracts F if F is the closest feature that can enter into a checking relation with sublabel of K.
(Chomsky, 1995, 297)

However, while locality restrictions explain why themes cannot move over recipients/goals, they do not explain how symmetric passives are allowed. Thus, locality restrictions do not account for cases where themes can move over a higher argument. Therefore, a new explanation has been proposed where arguments move **successive cyclically**, stopping at an intermediate position. In this position, the moved theme and the recipient/goal become equidistant from *T* (Anagnostopoulou, 2003; Holmberg and Platzack, 1995; McGinnis, 2001, a.o.). Due to this equidistance from *T*, either of the objects can passivise.

Various proposals have been made as to what allows such movement to an intermediate position. For example, for passives of ditransitives, Anagnostopoulou (2003) proposed **the Specifier to vAPPL parameter**, in (29).

(29) **The Specifier to vAPPL parameter**
Symmetric movement languages license movement of DO to a specifier of vAPPL. In languages with asymmetric movement, movement of DO may not proceed via vAPPL.

(Anagnostopoulou, 2003, 157)

Anagnostopoulou (2003), following Marantz (1993), assumes the universal structure of double object constructions represented in (30).[3]

(30) $[_{vP}$ Agent v $[v_{APPLP}$ Ben/Goal v_{APPL} $[_{VP}$ V Theme]]]

Under (29), in languages which allow for DO passivisation, the DO is successive-cyclically moved to the outer specifier of *ApplP*, as in (31).

(31) $[_{vAPPLP}$ DO $[_{vAPPLP}$ IO $[_{vAPPL'}$ v_{APPL} $[_{VP}$ V t_{DO}]]]]

Such movement to the outer [*Spec;ApplP*] position, allowed in languages that show the specifier to vAPPL parameter, makes the theme and goal/recipient equidistant from *T*. Following Chomsky (1995), Anagnostopoulou (2003) takes multiple specifiers of the same head to be equidistant from a c-commanding head that triggers movement. This equidistance in (31) allows either of the arguments to move further to [*Spec;TP*]. Asymmetric languages cannot move the theme through [*Spec;ApplP*]; hence, these languages can passivise only the higher argument, i.e. the goal/recipient.

A very similar, although conceptually superior, analysis is proposed in McGinnis (2001), where the specifier of vAPPL parameter is reduced to an independent property of a given language, namely the nature of phases (Chomsky, 1999, 2000, 2001). Under **Phase Theory**, syntactic derivations proceed in chunks called phases. Once a given phase is complete, it is sent to spell-out for phonological and semantic interpretation. It is commonly assumed that *vP* and *CP* constitute phases, and thus v and C are taken to be phase heads. When these phase heads project, whatever is in their complement position is sent to spell out. Crucially, due to the **Phase Impenetrability Condition (PIC)**, in (32), the complement of a phase head is no longer accessible to operations above the head at phase spell-out.

(32) **Phase Impenetrability Condition (PIC)**
In a phase α with head H, the domain H is not accessible to operations outside α, only H and its edge are accessible to such operations.

(Chomsky, 2000, 108)

[3]Note that both authors assume that the applicative head is a light applicative verb, i.e. v_{APPL}. This is in contrast to, e.g. Jeong (2007); McGinnis (2001); Pylkkänen (2002, 2008) who take the applicative head to be of the *Appl* type, i.e. resulting in *ApplP* as its maximal projection, not *vP*.

What is at the **edge of the phase**, i.e. the specifier of the phase head, together with the head itself are visible to the structure above the phase head. Movement to the edge of a phase is taken to be triggered by **an optional EPP feature**, similar to the EPP on *T*, which causes movement of external arguments to [*Spec;TP*]. A non-phase EPP, like the one on *T*, is taken to be obligatory, while a phase EPP is commonly assumed to be optional. Whenever the EPP feature is present on *v*, it will trigger movement of a lower DP to *v*'s outer specifier position. This movement, in turn, will allow the lower DP to avoid being frozen in the complement position under the PIC.

In what follows, we discuss how Phase Theory has been integrated into the theory of applicatives (Citko, 2011, 2014; Jeong, 2007; Lee, 2005; McGinnis, 2001, a.o.). Recently, it has been proposed that, in contrast to low applicatives, high applicatives constitute phases (McGinnis, 2001). Under the low applicative structure of Pylkkänen (2002, 2008) where the IO is a co-argument of DO, the lack of phasehood of low applicatives has been attributed to anti-locality constraints (e.g. Jeong, 2007; Lee, 2005). Under anti-locality, all applicative phrases can be taken to be phases. However, while the phasehood of *vP* and *CP* are common theoretical assumptions in the literature, the phasehood of *ApplP* is stipulative. What is more, the phasehood of *ApplP* can be done away with under the hypothesis as to two applicative types - *vP*-internal and *ApplP*-internal - proposed in Chapter 2 of this thesis. Under our hypothesis, only *vP*-internal applicatives are taken to constitute phases, as expected of *v* heads. *ApplP*-internal/*vP*-external applicatives are not phases.

In the discussion to follow, we abstract away from the problem of *weak* and *strong* phases, namely the differences between PIC, in (32), and PIC_2, in (33).

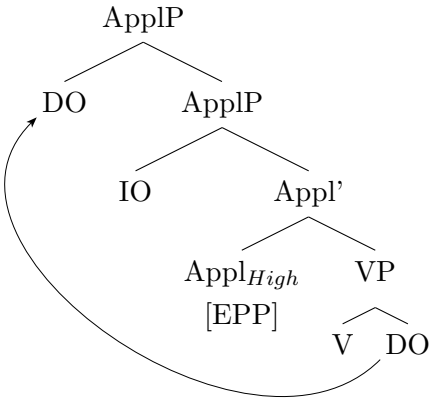
(33) **Phase Impenetrability Condition (*weak* PIC, or PIC_2)**
Given the structure $[_{ZP}$ Z ... $[_{HP}$ α $[_{H'}$ H Y P]]], where H and Z are phase heads, the domain of H is not accessible to operations at ZP; only H and its edge are accessible to such operations.
(Chomsky, 2001, 14)

Both in Polish and Icelandic, Experiencer_{DAT}-Theme_{NOM} constructions show evidence that the PIC is too strong, and that the PIC_2 is more accurate. This is because, in both languages, *T* can agree with a lower phase-contained theme, which indicates that until *C* merges, *T* has access to the lower phase. However, for the discussion in this chapter, it suffices to assume the traditional, strong, understanding of PIC.

5.1.4. Applicatives under Phase Theory

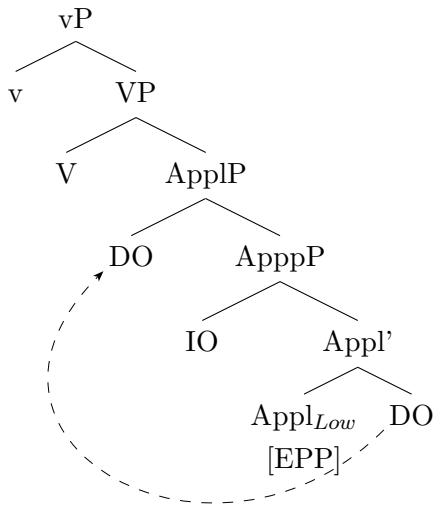
Following Pylkkänen (2002, 2008), McGinnis (2001) assumes that there are two types of applicatives, low and high. The low applicative is a co-argument of the theme, and the high applicative merges above *VP*. McGinnis argues that the asymmetries in passives of ditransitives are due to the asymmetries in the two types of applicatives (McGinnis, 2001). Crucially, McGinnis takes **high applicative heads to constitute phases**, similarly to v or C, and **low applicatives to be non-phase heads**. As a consequence of this proposal, high applicative phrases allow movement to their edge, while low applicatives do not do so. Following this hypothesis, McGinnis proposes that symmetric passive languages have high applicative structures, which allow for movement of the theme to the outer [*Spec;ApplP*$_{high}$]. In contrast, asymmetric passive languages have low applicative structures, which do not allow the movement of the theme above the recipient/goal. The difference in these two structures and their predictions for Phase Theory are represented in (34).

(34) a. **EPP-marked high applicative, allowing movement**



b. **non-EPP-marked low applicative, not allowing movement**[4]

[4]Throughout this chapter, movement that is blocked will be marked with a dashed arrow.



(McGinnis, 2001, 7, ex.16)

Later, e.g. Jeong (2007); Lee (2005) proposed an advancement to McGinnis' account arguing that the lack of movement to the outer specifier of the low applicative head is due to **anti-locality**. Various versions of anti-locality have been proposed in the literature (Abels, 2003; Bošković, 1994; Grohmann, 2003, a.o.). Both Lee (2005) and Jeong (2007) follow Abels' version, formulated in (35).

(35) **Anti-locality constraint**
*$[_{XP}$ YP X t$_{YP}$]

(Abels, 2003, 12)

Under (35), movement of the complement of a given head to the specifier of the same head is too short, and it is therefore ungrammatical. Thus, the DO, part of the low applicative projection, cannot move the outer [*Spec;ApplP$_{low}$*], because the movement is too local.

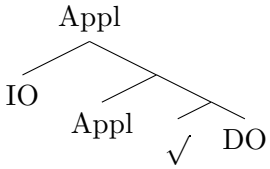
Assuming the anti-locality constraint, one can argue that all applicative heads are phases, irrespective of whether they are high or low. However, due to the different structure of the two, DO's movement to [*Spec;ApplP$_{Low}$*] is banned under anti-locality (Jeong, 2007; Lee, 2005). Therefore, the non-phasehood of the low applicative head derives from an independent language property, i.e. language's resistance to movement that is too short. In theoretical terms, the anti-locality constraint as an independent factor blocking DO's movement to [*Spec;ApplP$_{Low}$*] is a desirable explanation for the lack of theme passivisation in low applicative contexts.

However, in the light of the Polish data, a problem arises. Namely, as already illustrated in (5), Polish low applicatives allow DO passivisation. What is more,

these contexts allow only the DO to move to [*Spec;TP*]. Thus, it seems that under the low applicative structure of Pylkkänen (2002, 2008), Polish can violate the anti-locality constraint illustrated in (34b). If we take the Polish DO to be a co-argument of the IO, the DO is expected to be blocked from movement to [*Spec;ApplP*$_{Low}$], contrary to the facts.

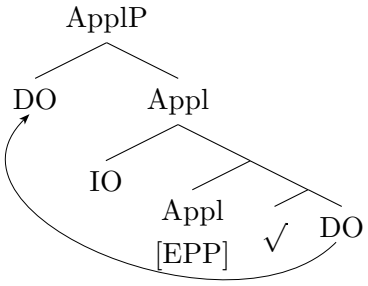
The analysis of low applicatives proposed in Chapter 3 seemingly solves the problem of the lack of anti-locality violation in Polish passives of DOs. Recall that in Chapter 3, we rejected the low applicative structure of Pylkkänen (2002, 2008), assumed by McGinnis. We proposed an alternative representation for low applicatives, where the applied IO is not a co-argument of the DO, as in (36).

(36) **low applicative structure proposed in this thesis**



Crucially, under (36), anti-locality does not restrict the movement of the DO to [*Spec;ApplP*]. If we assume that all applicative heads constitute phases, under (36) the DO is expected to move to the outer specifier of the *ApplP*, as in (37).

(37)

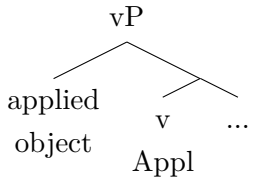


However, a new problem arises. Under (37), we predict that either of the objects in Polish can passivise. Because both objects are in a specifier position of the same head, they are both equidistant from a higher c-commanding head with EPP, be it *v* or *T*. This is contrary to the facts; as already shown in (5), only DOs can passivise in Polish. Thus, even under (36), we still cannot fully explain the Polish data if we assume that all *App* heads are phases.

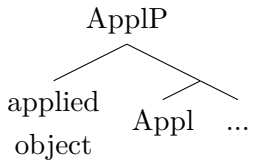
Nevertheless, as already pointed out, the assumption that *App* heads constitute phases seems stipulative. Under the *vP*-internal vs. *vP*-external applicative kinds hypothesis, we do not have to assume the phasehood of *Appl*s at all. In Chapter 2, we proposed that applicative arguments come in two different types. There are applicatives that are licensed by the *v* head, and those that are licensed by *Appl*. In syntactic terms, the maximal projection of one applicative

type is that of *vP*, whereas that of the other kind is *ApplP*, as in (1), recalled for convenience in (38).

(38) a. ***vP*-internal applicative**



b. ***vP*-external/*Appl*-internal applicative**



We predicted that applied arguments projected as part of *vP* should show properties typical of internal arguments, e.g. they should passivise. In contrast, applicatives licensed as part of *ApplP* are expected to lack properties typical of internal arguments. Thus, we do not expect *vP*-external applicatives to passivise. As we demonstrate below, this difference in the maximal projection of the applicative-licensing phrase, in (38), is relevant for the standard Phase Theory, which takes the *v* head, but not the *Appl* head, to be a phase (Chomsky, 1999, 2000, 2001, e.g.). Under the standard Phase Theory and (38), only verbal applicative heads, in (38a), are phases. If true, we can eliminate the assumption as to the phase status of *Appl* heads.

In what follows, we take *v*s to be phases, and we show how this assumption combined with the notion of equidistance (Chomsky, 1995), where two specifiers of the same head are equidistant from a c-commanding head that attracts movement, can account for the (a)symmetries in passive patterns. We illustrate our analysis with two languages - asymmetric Polish and symmetric Icelandic. The differences concerning passivisation patterns in Icelandic and Polish, in (39), motivate the choice of these two languages.

(39) a. **Polish** - allows only DOs to passivise[5]

b. **Icelandic** - allows: a) only IOs, or b) IOs and DOs, depending on the predicate, or more precisely on the case-marking of the two objects of a given predicate.

Moreover, by comparing Polish with Icelandic, we can account for all the possible passivisation patterns: a) symmetric, b) asymmetric with passivised IO,

[5]Exceptions do exist, we briefly comment on them in Section 5.1.5.

and c) asymmetric with passivised DO. What is more, because Icelandic ditransitives are similar to English in that they involve a small clause projection (Collins and Thráinsson, 1996; Ottósson, 1991, e.g.), the structure proposed for Icelandic can be easily extended to the English ditransitives discussed in Chapter 3.

The edge of phase under the *Voice* theory However, before we turn to discuss Polish and Icelandic in more detail, a word of explanation is due. This is because, in the previous chapters, we assumed after, e.g. Alexiadou et al. (2006); Cuervo (2003); Harley (2013); Kratzer (1996); Pylkkänen (2002, 2008) that the external argument is licensed by a head distinct from *v*, namely *Voice*. Therefore, the question arises as to whether [*Spec;vP*] or rather [*Spec;VoiceP*] is the escape hatch under Phase Theory.

Under the Larsonian *VP* structure (Larson, 1988, 1990, et seq.), *v* is a phase, and therefore it is [*Spec;vP*] that constitutes the edge of the phase. Because under this architecture of grammar, *v* licenses the external argument, it might seem that under the *Voice* theory, the edge of the *v* phase is [*Spec;VoiceP*], rather than [*Spec;vP*]. For expository reasons, in what follows, we assume [*Spec;vP*] as the edge of the phase associated with *v*. Because our account is based on analyses that follow the *VP*-shell of Larson, taking [*Spec;VoiceP*] to be the edge, we would loose the explanatory and comparative power of our analysis.

Note, however, that conceptually, it is possible that it is indeed [*Spec;vP*] that constitutes the *v* phase edge, even under the theory of *Voice*. Under the initial understanding of phases, it has been proposed that only transitive *v*s provide heads associated with Phase-EPP. However, more recent studies show evidence that unaccusative verbs, whether analysed under the *VP*-shell hypothesis as projecting *VP* only or a defective *v*, are also phases (Ingason and Wood, 2017; Legate, 2003; Marantz, 2007, a.o.). In the system proposed in this work, unaccusative verbs project the verbalising *v*, but they lack *Voice*. In a way then, the verbalising *v* of unaccusatives is the equivalent of the unaccusative V/v_{def} under the *VP*-shell. If such *v* of an unaccusative verb is a phase, then the only possible landing site for the movement to the edge under *Voice* theory is that of [*Spec;vP*].[6] Thus, we take it that it is [*Spec;vP*], not [*Spec;VoiceP*] that constitutes the edge of the phase.

[6]Note, additionally, that if unaccusatives do show movement to [*Spec;vP*], under the analysis proposed in this work, there is no need to distinguish between *v*s in transitive and unaccusative structures - in both cases, the EPP-feature is associated with the verbalising *v*. The EPP attracts a lower DP to [*Spec;vP*], regardless of whether the *Voice* head is projected above or not.

5.1.5. Passivisation in Polish ditransitives

In general, Polish DACs show asymmetric passives, where only the DO can passivise, as in (40a). Dative-marked IOs cannot passivise, regardless of whether their case is changed to nominative, as in (40b) or preserved, as in (40c).

(40) Maria dała Tomkowi książkę.
Maria.NOM gave Tomek.DAT book.ACC
'Maria gave Tomek a book.'

a. **Książka** została dana Tomkowi.
book.NOM became given Tomek.DAT
'A book was given to Tomek.'

b. *__Tomek__ został dany książkę.
Tomek.NOM became given book.ACC
Intended: 'Tomek was given a book.'

c. *__Tomkowi__ zostało dane książkę.
Tomek.DAT bacame given book.ACC
Intended: Tomek was given a book.'

It is possible to move the dative IO (preserving its case) to a preverbal position, as in (41), which seemingly looks like true passivisation.

(41) **Tomkowi** została dana książka. (Polish)
Tomek.DAT became given book.NOM
'Tomek was given a book.'

The sentence in (41) looks very similar to the Icelandic example of passive in (42).

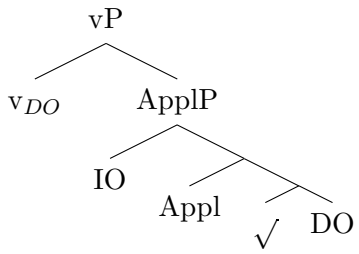
(42) **Jóni** voru gefnar bækur. (Icelandic)
Jón.DAT were given books.NOM
'Jón was given books.'

In both (41) and (42), the IO moves to a preverbal position. Moreover, in both instances, the IO's dative case is preserved. Also, in both examples, the DO's case is changed from accusative to nominative and the verb agrees with the nominative-marked argument. However, the similarity between (41) and (42) is only apparent. As we established in Section 5.1.2, while Icelandic dative objects can passivise, Polish dative objects cannot become a passive subject. The preverbal dative IO in (41) is a topicalised object, rather than a passive subject. Thus, with regard to passivisation in ditransitive contexts, we take Polish to be of the asymmetric type, where only one object can passivise, typically the DO (Citko, 2011, 2014, for similar observations). We discuss the derivation below.

In Chapter 3, we showed evidence that, in contrast to English (and as demonstrated in the section to follow in contrast to Icelandic), Polish DACs do not

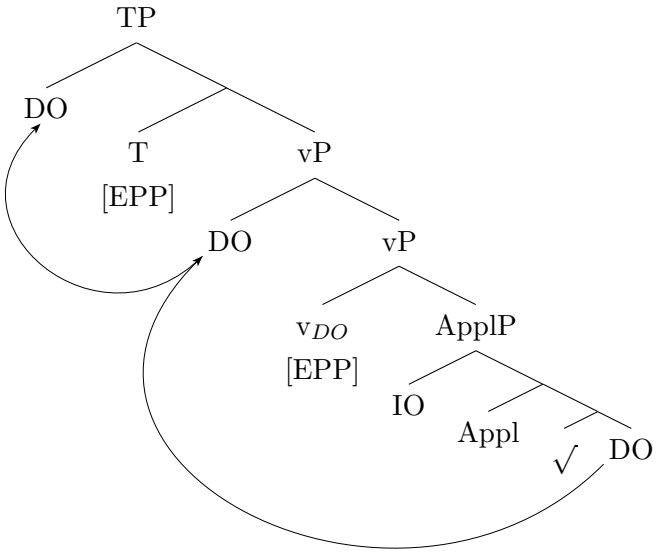
project a small clause. We proposed the following (for expository reasons, somewhat simplified here), analysis of Polish DACs:[7]

(43)



In (43), the IO is not a co-argument of the DO. Therefore, were the *Appl* head marked with [EPP], the movement of the DO to the outer specifier of *ApplP* would not be banned under anti-locality. Recall, however, from the discussion earlier in this chapter that we do not take *Appl* heads to be marked with EPP, contra, e.g. Citko (2011, 2014); Jeong (2007); Lee (2005); McGinnis (2001). We assumed that while *v* heads are phases, *Appl* heads are not. Therefore, in (43), it is the v_{DO} head that is marked with [EPP], not *Appl*. Thus, the movement of the DO to the edge of the phase corresponds to a movement to [*Spec;vP*], as in (44).

(44) **asymmetric passive in Polish**

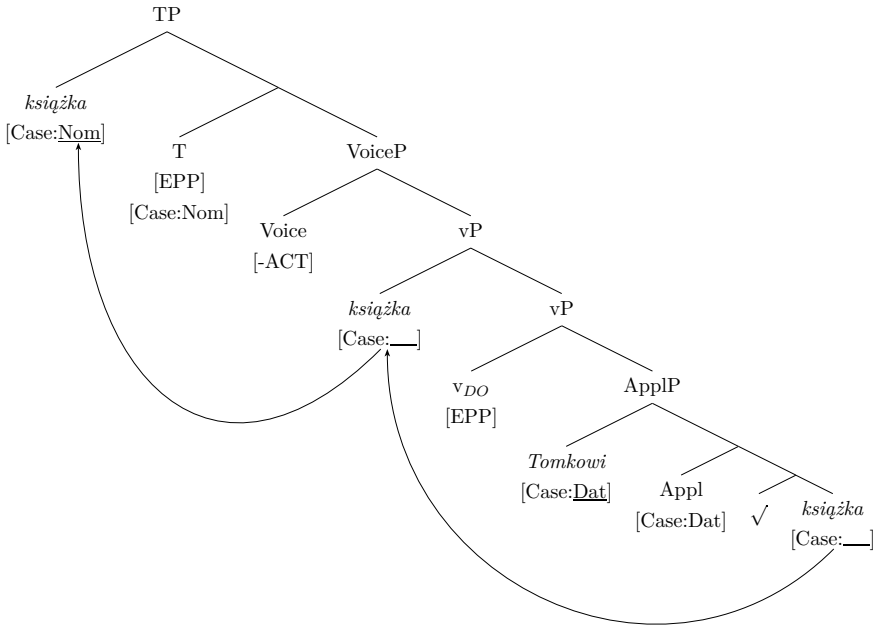


The DO, attracted by the [EPP] feature on v_{DO}, moves to [*Spec;vP*]. Assuming after Chomsky (1995) that multiple specifiers of the same head are

[7] In Chapter 3, we proposed that the recipient IO of a DAC is base-generated in [*Spec;*$\sqrt{}$*P*] and later it is *made* into an applicative by movement to [*Spec;ApplP*]. Because this detail is not crucial to the discussion in this chapter, in the tree representations in the discussion to follow, we abstract away from the IO's movement from [*Spec;*$\sqrt{}$*P*] to [*Spec;ApplP*].

equidistant to a higher head, the DO in [*Spec;vP*] and the IO in [*Spec;ApplP*] are not equidistant to *T*. Thus, only the higher DP, i.e. the DO, can be attracted by the [EPP] on *T* to move to [*Spec;TP*]. Hence, only the DO can passivise. This is illustrated in more detail in (45).

(45) Książka została wysłana Tomkowi.
book.NOM was sent Tomek.DAT
'The book was sent to Tomek.'



Nevertheless, one issue remains unsolved, namely why does the EPP on v_{DO} attract the DO, not the IO? After all, under *Shortest Move*, in (28) and repeated for convenience in (46), we expect the IO to move to the outer specifier of v_{DO}, not the DO.

(46) **Shortest Move/Closest Attract**
K attracts F if F is the closest feature that can enter into a checking relation with sublabel of K.

(Chomsky, 1995, 297)

To explain the lack of movement of the IO, we assume the Activity Condition (Chomsky, 2001; Miyagawa, 2010; Nevins, 2004; Richards, 2008a, a.o.). Following Chomsky:

> [u]ninterpretable [i.e. unvalued] features of a probe and goal render their relevant subparts active. Matching of the features of a goal and probe induces Agree, eliminating uninterpretable features that

> activate them. [...] Goal as well as probe must be active for Agree to apply. (Chomsky, 2001, 6)

The *Activity Condition*, in (47), requires a DP to have at least one unvalued feature to be visible for syntactic operations, with the exception discourse-driven movement (Miyagawa, 2010). In the case of goals, this unvalued feature is typically [Case:___].

(47) **The Activity Condition (AC)** [is] the requirement that probe and goal are active (visible) for Agree. Probes are active by virtue of being, by definition, unvalued features; goals, on the other hand, are sets of interpretable features and must therefore be rendered active/visible for Agree by means of designated activation features (Case features, for the ϕ-system). (Richards, 2008b, 183)

Thus, we take it that dative-marked IOs in Polish DACs are syntactically inactive, and therefore they are not visible to the EPP feature on v_{DO}. Following the case valuation algorithm, introduced at the end of Chapter 4 and repeated in (48), the inherent dative case is valued first of all other cases. This valuation of the dative case makes the IO invisible to (non-discourse) operations.

(48) **(non)agreeing case assignment algorithm**

a. Assign a non-agreeing, ACC, case to a DP that does not establish *Agree* with *T*,

b. Assign an agreeing, NOM, case to a DP that establishes *Agree* with *T*,

c. Inherent/lexical Case takes precedence over other cases.

   i. Inherent case is valued by a given functional head, e.g. *Appl*.

   ii. Lexical case is valued by the root.

Combining *Attract Shortest*, in (28), with the *Activity Condition*, in (47), we assume a modified version of the *Attract Shortest*, namely *Closest Active Attract*, in (49).

(49) **Closest Active Attract**
Probe K attracts F if F is the **closest active Goal** that can enter into a checking relation with sublabel of K, where 'active Goal' means a Goal with at least one unvalued feature.

Under *Closest Active Attract* only closest arguments that are syntactically active for EPP- or ϕ-motivated movement. In the case of Polish passives, this

closest active argument is the DO.[8]

That the *Activity Condition* is relevant to passivisation is supported by the passive behaviour of ditransitive verbs of the NOM-ACC-GEN case frame in Polish. As pointed out in Dziwirek (1994, 2002) and also noted in Citko (2011), there is a small class of verbs in Polish which allow their IOs to passivise, these include, e.g. *pozbawić* 'to deprive', in (50). These verbs can passivise their IO, but cannot passivise the DO.

(50) Ostatnie wiadomości pozbawiły **Ewę** nadziei.
last news.NOM deprived Ewa.ACC hope.GEN
'Recent news deprived Ewa of hope.'[9]

(Dziwirek, 2002, 341, fn. 1)

Essentially for our proposal, in active voice, the object that passivises, i.e. the IO, is marked with structural case. Therefore, the IO has no case valued at the point in which the passive rule applies. This makes the IO syntactically visible and thus available for passivisation. Consider (51).

(51) a. **Ewa** została pozbawiona nadziei przez ostatnie
Ewa.NOM became deprived hope.GEN by last
wiadomości.
news
'Ewa was deprived of hope by recent news.'

b. ***Nadzieja** została pozbawiona Ewę przez ostatnie
hope.NOM became deprived Ewa.ACC by last

[8] One could say that if we assume that the IO_{DAT} is syntactically inactive, it does not matter whether the IO and DO are equidistant to *T*. After all, under the *Activity Condition*, even if we propose that the IO is in [*Spec;vP*], i.e. that it is a *vP*-internal applicative, the IO would not passivise, as it is invisible. While this observation is accurate, there are independent reasons to take Polish IOs to be *ApplP*-internal rather than *vP*-internal. Recall from Chapter 3 that extraction phenomena as well as licensing of distributive *po*-phrases indicate that Polish IOs are *vP*-external. Therefore, although under the *Activity Condition* the lack of equidistance between the IO and DO plays a secondary role, we still take it that Polish IOs are projected as part of *ApplP*, not *vP*.

[9] While a typical DO in Polish is marked with accusative case, not all accusative case-marked DPs are DOs. Note, e.g. that in (50), the IO_{ACC} can be dropped, a feature characteristic of IOs (as discussed more extensively in Chapter 3). In contrast, the DO_{GEN} cannot be omitted. This is demonstrated in (i).

(i) Ostatnie wiadomości pozbawiły nadziei.
last news.NOM deprived hope.GEN
'Last news deprived (some people) of hope.'

a. *Ostatnie wiadomości pozbawiły Ewę.
last news.NOM deprived Ewa.ACC
Intended: 'Last news deprived Ewa.'

wiadomości.
news
Intended: 'Ewa was deprived of hope by recent news.'

(Citko, 2011, 117)

The DO, marked with a lexical (genitive) case, cannot passivise, because under the *Activity Condition*, it is not active and thus invisible to syntax when passive applies. In contrast, the structurally case-marked IO can passivise, as at the point when the passive applies, the IO is not yet marked with [Case:Acc], making the DP syntactically active.

That the accusative case on the indirect object is structural, i.e. unvalued at the time when passive applies, can be demonstrated with the fact that it changes to genitive under negation.

(52) Ostatnie wiadomości nie pozbawiły **Ewy** nadziei.
last news.NOM not deprived Ewa.GEN hope.GEN
'Recent news did not deprive Ewa of hope.'

In simple clauses, whenever the verb is negated in Polish, it is obligatory for a nominal object marked with a structural accusative case to change into genitive.[10] Inherently/lexically-marked objects preserve their case under negation. Hence, the genitive of negation is often used as a diagnostics for the structural vs. inherent/lexical nature of a given case (Bondaruk et al., 2017b; Citko, 2011; Willim, 2018, a.o.).

We take the fact that it is the structurally case-marked IO_{ACC} in *pozbawić* 'to deprive' that passivises to be indicative of the need for a given DP to satisfy the Activity Condition in order to passivise, or more generally in order to undergo A-movement. On the basis of NOM-ACC-GEN verbs, we can see that in order to be attracted to [*Spec;TP*] (through the outer [*Spec;vP*]), both the relative

[10] This applies to prototypical objects as in (i) and to e.g. accusative-marked object experiencers, in (ii).

(i) a. Tomek dał Kasi **prezent**.
Tomek.NOM gave Kasia.DAT gift.ACC
'Tomek gave Kasia a gift.'

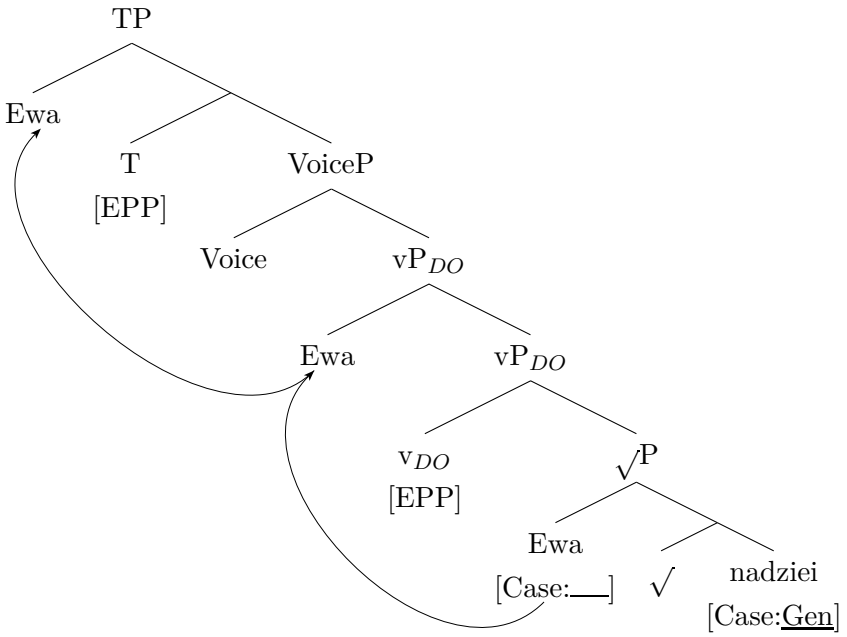
b. Tomek nie dał Kasi **prezentu**.
Tomek.NOM not gave Kasia.DAT gift.GEN
'Tomek did not give Kasia a gift.'

(ii) a. **Ewę** boli głowa.
Ewa.ACC hurts head.NOM
'Ewa has a headache.'

b. **Ewy** nie boli głowa.
Ewa.GEN not hurts head.NOM
'Ewa does not have a headache.'

position of the DP as well as its activity are relevant. The structure in (53) demonstrates the movement in passives that attract the IOs.

(53) Ewa została pozbawiona nadziei.
Ewa.NOM became deprived hope.GEN
'Ewa was deprived of hope.'



The IO is licensed in [*Spec:*$\sqrt{}$], as other IOs (cf. Chapter 3 for more details). Presumably, the *App* head is not projected, hence the IO does not move to [*Spec;ApplP*] as is typical of IO$_{DAT}$s, discussed in Chapter 3.[11] Because no *Appl* head, marked with [Case:Dat], is projected, the IO's case remains unvalued - [Case:___], which makes the IO visible to syntax. Thus, the IO can be attracted by the EPP on v_{DO} to move to its specifier, i.e. the edge of the phase. Once the IO is in [*Spec;vP*$_{DO}$], the EPP on T can attract the IO to move to [*Spec;TP*], allowing the IO to passivise. Crucially, the fact that structurally case-marked IO$_{ACC}$s can passivise while inherently case-marked IO$_{DAT}$s cannot do so indicates that IO$_{ACC}$ are active at the point when passivisation applies while IO$_{DAT}$s are not.

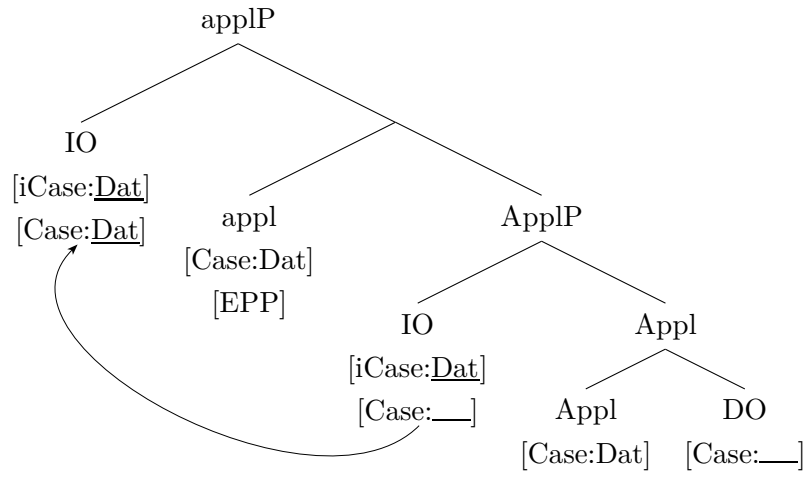
Our proposal as to the invisibility of Polish IO$_{DAT}$s is to a certain extent similar to that of Citko (2011). More precisely, both accounts propose that Polish IO$_{DAT}$s are syntactically inactive and therefore not available for passivisation. Although not explicitly mentioned, Citko seems to assume an *Activity*

[11] Alternatively, the IO could be moved to [*Spec;ApplP*] headed by a caseless *App* head. We remain agnostic as to which of these two options is more accurate.

Condition of sorts, as she argues that once the structural case of the Polish IO is valued, the IO can no longer be the target of passive movement. However, in contrast to the analysis proposed here, Citko (2011) takes the dative of IO_{DAT}s in Polish to be a 'quirky case'. We discuss the notion of quirky case (Chomsky, 1995, 1999; Jónsson, 1996; Richards, 2008a; Schütze, 1993, a.o.) in more detail in the section to follow. For now, it suffices to say that quirky case is taken to be a combination of an inherent and a structural case stacked on one another. Crucially, Citko (2011) takes 'inherent case', in Woolford's (2003) understanding, to be the same as 'quirky case' (Citko, 2011, 239, note 52).

Assuming that Polish IOs are marked with a quirky case, Citko (2011) proposes that the dative of IOs is decomposed into an inherent dative and a structural dative. The inherent dative is valued first, by *Appl*. Then, the structural dative is valued by a **light *appl* head** projected above *ApplP*. The valuation of the structural case renders the IO invisible to syntax. This is illustrated in (54).[12]

(54)



(Citko, 2011, 155, ex. 138, with modifications wrt. feature marking)

Citko (2011) proposes a more complex account than the one put forward here. Under grammar economy considerations as well as the Ockham's Razor Principle, we believe the complexity of (54) to be undesirable. Most distinctly, we believe that the projection of an extra, light *appl* head with the EPP feature is redundant.

The, non-standard, light *appl* head projection can be eliminated. Under the *Activity Condition*, inherently-marked dative DPs are rendered invisible to syntax once their case is valued. There is no need to assume that to deactivate the

[12] In order to distinguish the structural dative from the inherent one in the tree representation, we marked the inherent dative with [iCase:Dat] and the structural one with [Case:Dat].

IO, an extra structural case needs to be valued. Moreover, the assumption that IO_{DAT}s are marked with an extra, structural dative case is questionable, as Polish seems to lack structural dative case. We are not aware of any dative-marked objects which change their case under genitive of negation. Moreover, we are aware of only one predicate in Polish that licenses a dative case DO that can passivise, in (55).

(55) a. Imperialiści zagrozili **pokojowi**.
imerialists.NOM threatened peace.DAT
'Imperialists threathened the peace.'

b. **Pokój** został zagrożony przez imperialistów.
peace.NOM became threatened by imperialists.
'The peace was threathened by the imperialists.'

(Zabrocki, 1981, in Bondaruk, 2018)

Based on the fact that the dative-marked DP in (55) can passivise, one could argue that the dative-case is visible/structural. However, (55) is an exception, and therefore it seems that the ability of the DO_{DAT} in (55) to passivise is an idiosyncratic property of the predicate/case-marking. This is supported by the fact that the dative in (55) is preserved under negation, as in (56), which indicates the the dative case is non-structural.

(56) Imperialiści nie zagrozili **pokojowi** /***pokoju**.
imperialists.NOM not threatened peace.DAT /peace.GEN
'Imperialists did not threaten the peace.'

Therefore, (55) does not provide a generalisation as to the existence of structural dative case in Polish.

Moreover, we believe that Citko's definition of the Polish inherent dative case as a 'quirky case' is faulty. Citko (2011) takes the inherent case of Woolford (2003) to be the equivalent of 'quirky case'; nevertheless, as also pointed out in e.g. Schütze (1993, 321, note 1), the two are not synonymous. Inherent case is simple in that it does not constitute two stacked cases. In contrast, quirky case is a complex case composed of two stacked cases. In the section to follow, we discuss quirky case in more detail. We show that Citko's analysis of Polish datives is more applicable to the dative of Icelandic IOs. We show that in contrast to Polish IOs, marked with inherent dative, Icelandic IOs are marked with quirky dative case.

5.1.6. Passivisation in Icelandic ditransitives

5.1.6.1. Symmetric passives

Similarly to Polish, the most productive case frame of Icelandic ditransitives is that of NOM-DAT-ACC (NDA-frame). However, in contrast to Polish which shows asymmetric passives, Icelandic generally allows both objects of the NDA-frame to passivise, as illustrated in (64). Thus, Icelandic is a language with symmetric passives.

(57) Ég gaf Jóni bækur.
I.NOM gave Jón.DAT books.ACC
'I gave Jón the books.'

a. **Jóni** voru gefnar bækur. (Icelandic)
Jón.DAT were given books.NOM
'Jón was given books.'

b. **Bækurnar** voru gefnar Jóni.
books.the.NOM were given Jón.DAT
'The books were given to Jón.'

(Holmberg and Platzack, 1995, 215, ex. 7.67a,b)

As already mentioned in Section 5.1.2, there is evidence that passive dative-marked subjects in Icelandic, like the one in (57a), are true passive subjects. Icelandic differs from Polish in that Polish does not allow passivisation of dative IOs. In what follows, we propose that the difference between Icelandic and Polish stems from the type of their applicatives. While Polish applicatives are *vP*-external, Icelandic applicatives are part of a *vP*. Moreover, in contrast to Polish IO_{DAT}, which we argued in the previous section to be inactive in syntax, Icelandic IO_{DAT}s appear to be syntactically active. First, we discuss the *vP*-internal status of Icelandic IOs. Then, we demonstrated the active status of the Icelandic IO.

We take it that Icelandic applicatives are *vP*-internal based on the phenomenon of **object shift** (Collins and Thráinsson, 1996; Hiraiwa, 2001; Holmberg and Platzack, 1995; Jonas, 1996; Thráinsson, 2001, a.o.). In general, the IO of Icelandic ditransitives c-commands the DO. However, Icelandic NDA-verbs allow the DO to shift to a position from which they can c-command the IO. This shift can be demonstrated with reflexive binding, as in (58).

(58) a. Ég gaf konungi$_i$ ambáttina **sína**$_i$.
I.NOM give king.DAT slave.the.ACC self's.ACC
'I gave the king his slave.'

b. Ég gaf ambáttina$_i$ konungi **sínum**$_i$.
I.NOM give slave.the.ACC king.DAT self's.DAT

'I gave the slave to his king.'

(Zaenen et al., 1990, 118-19, ex.65)

Note that in (58b), the fronted accusative DO is a licit binder of the anaphor in *konungi sínum* 'his king'. Thus, the DO must be in a position that c-commands the IO. Moreover, the DO must be in an A-position, allowing for anaphor binding. We take this A-position to be the phase edge of v, i.e. [*Spec;vP*].[13] Others, e.g. Hiraiwa (2001); Jonas (1996); Thráinsson (2001), proposed a similar analysis of the Icelandic object shift as movement to [*Spec;vP*]. Based on object shift: a) if shifted objects in Icelandic move to [*Spec;vP*], and b) the intermediate position of the DO under passivisation is also that of [*Spec;vP*], then c) Icelandic applicatives must be *vP*-internal. Only a *vP*-internal applicative (i.e. IO in [*Spec;vP*]) can be equidistant to T with a DO in [*Spec;vP*]. In turn, the equidistance of DO and IO in [*Spec;vP*] allows for symmetric passives with Icelandic NDA-verbs, as in (59).

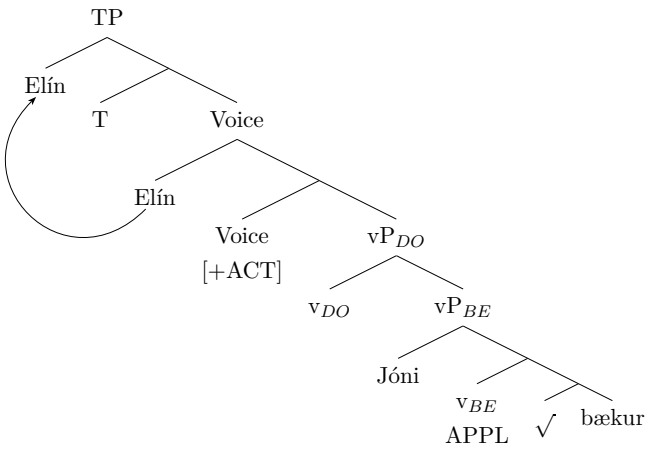
(59) a. **Ambátin** var gefin konungi.
slave.the.NOM was given king.DAT
'The slave was given to the king.'

b. **Konungi** var gefin ambátin.
king.DAT was given slave.the.NOM
'The king was given the slave.'

That Icelandic applicatives are *vP*-internal is possible, based on independent observations. As argued e.g. in Collins and Thráinsson (1996); Ottósson (1991), Icelandic DACs are similar to English DOCs, in that they project a small clause. If so, in both English DOCs and Icelandic DACs, the IO is licensed as a subject of the small clause, in [*Spec;vP*]. Consider the basic structure of the Icelandic DAC we assume under our architecture, in (60).

(60) Elín gaf Jóni bækur.
Elín.NOM gave Jón.DAT books.ACC
'Elín gave Jón books.'

[13] In Chapter 4, we demonstrated that Polish high applicatives, in [*Spec;ApplP*], can act as anaphor antecedents. Thus, one could ask whether the intermediate position to which the Icelandic DO moves in the object shift and passivisation is not that of [*Spec;ApplP*]. However, because Icelandic lacks high applicatives (e.g. Viðarsson, 2017; Wood, 2012, 2015), we take the Icelandic intermediate position that allows for anaphor binding to be that of [*Spec;vP*].



The small clause corresponds to vP_{BE}, which is embedded under the causing event encoded by vP_{DO}. The subject of this clause is projected in [*Spec;vP*$_{BE}$]. The structure in (60) follows Cuervo's (2003) representation of complex predicates. Also, (60) follows the small clause accounts of Icelandic DACs proposed in, e.g. Collins and Thráinsson (1996); Ottósson (1991). Essentially, by proposing that the IO is projected in [*Spec;vP*], we take the IO to be a *vP*-internal applicative. Moreover, following, e.g. Wood (2015), we take Icelandic IOs to be low applicatives. The low applicative character of the Icelandic IO is reflected in the fact that it is projected under v_{DO}, similarly to Polish low applicatives.

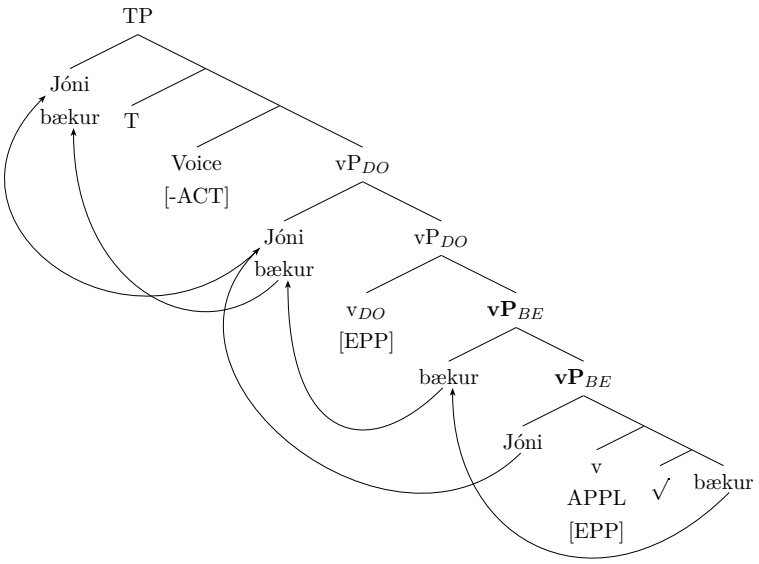
As already mentioned, the *vP*-internal character of Icelandic IOs makes them equidistant to DOs when the DO passivises, namely when the DO is moved to [*Spec;TP*] through [*Spec;vP*]. This is illustrated in (61).

(61) a. **Bækurnar** voru gefnar Jóni. (Icelandic)
books.the.NOM were given Jón.DAT

'The books were given to Jón.'

b. **Jóni** voru gefnar bækur.
JónDAT were given books.NOM

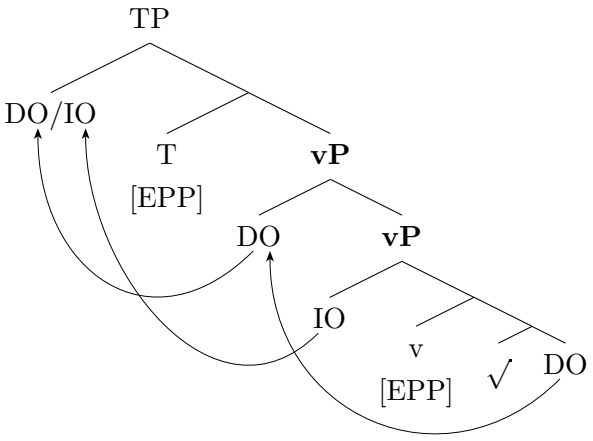
'Jón was given some books.'



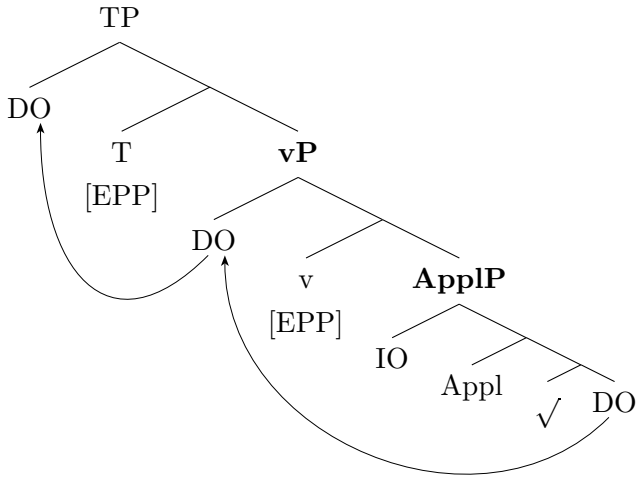
Because each clause in Icelandic, vP_{DO} and vP_{BE}, is a semantically complete form, we assume that each constitutes a phase. Therefore, we take it that both v_{DO} and v_{BE} are marked with an optional EPP feature. The EPP on v_{BE} can attract the DO to move to [*Spec;vP*$_{BE}$]. Once the DO moves to [*Spec;vP*$_{BE}$], the DO and the IO, also in [*Spec;vP*$_{BE}$], become equidistant to the c-commanding EPP feature. As a result, either of the objects can be attracted to passivise and move (through the vP_{DO} phase) to [*Spec;TP*].

The difference between (low) applicatives in Icelandic and Polish, discussed in the previous section, is that Icelandic applicatives are *vP*-internal while Polish applicatives are *ApplP*-internal. As a consequence, the movement to the phase edge, [*Spec;vP*], makes the IO and the DO equidistant to a c-commanding head with EPP in Icelandic but not in Polish. This, in turn, results in the fact that passives of Icelandic DACs are asymmetric, while passives of Polish DACs are symmetric. This general difference is illustrated in (62).

(62) a. **Icelandic: *vP*-internal *Appl*, equidistance**



b. **Polish: *vP*-external *Appl*, no equidistance**



Moreover, Icelandic IOs differ from Polish IOs in the nature of their dative case. Recall from the previous section that, under the *Activity Condition*, Polish IO_{DAT}s become invisible to syntax once their inherent dative case is valued. The fact that Icelandic IOs can passivise indicates that they are visible. We take the activity of Icelandic IOs to be due to the quirky, not inherent, character of their dative case.

A quirky case has been taken in Chomsky (1995, 127), or Chomsky (1999, 43, note 8) to be a complex case, composed of **inherent case with an additional structural case feature**. The addition of an unvalued structural case to a valued inherent case, makes the quirky case-marked argument visible under the *Activity Condition*. Similar accounts of quirky case as complex structural+inherent case have been proposed in, e.g. Citko (2011); Gogłoza (2017b); Jónsson (1996); Richards (2008a,b); Sigurðsson (2003).

The notion of quirky case might seem an ad hoc, theory-internal proposal, argued for in order to save the validity of the *Activity Condition* in the light of inherently case-marked arguments that appear to be syntactically active. However, this is not necessarily the case. Similar double morphological case-marking is present cross-linguistically. Some languages, e.g. Korean show **case-stacking** (Schütze, 2001; Yoon, 2001, a.o.). In languages that overtly stack two cases, a DP can take the form of DP.Case_{inh}+Case_{str}. This is illustrated in (63).

(63) a. Cheli-**hanthey-ka** Yenghi-ka mwusep-ta. (Korean)
Cheli.DAT.NOM Yenghi.NOM fearsome

'It is Cheli who is scared of Yenghi.'

b. Cheli-**hanthkey-ka** ton-i philyoha-ta.
Cheli.DAT.NOM money.NOM necessary
'It is Cheli who needs money.'

(Yoon, 2001, ex. 12)

In (63), the experiencer argument is marked with a nominative case stacked on top of the dative case. Case stacking in Korean is characteristic of non-nominative subjects. As demonstrated in Section 5.2.3, Icelandic non-nominative Exp subjects also appear to be marked with a quirky case, i.e. a combination of inherent and structural cases.

5.1.6.2. Asymmetric passives

Icelandic verbs with dative and accusative objects, discussed in the previous section, are the only productive class in Modern Icelandic. However, 4 other verb classes, distinguished based on case frames, are present. These, together with dative-accusative verbs, are listed in (64).

(64) **case frames of ditransitives in Icelandic**[14]

verb class		**approx. number**
dative-accusative verbs	(NDA-verbs)	220
accusative-dative verbs	(NAD-verbs)	37
dative-dative verbs	(NDD-verbs)	29
dative-genitive verbs	(NDG-verbs)	28
accusative-genitive verbs	(NAG-verbs)	21

(Jónsson, 2000, 73, ex.3)

Only NDA-verbs allow symmetric passives. All other verbs can passivise only one object, the one closer to the predicate, i.e. the recipient. This is illustrated with a predicate of the NDD-type in (65), repeated from (11).

(65) a. **Jóni** var skilað bókunum. (Icelandic)
Jón.DAT was returned books.the.DAT
'Jón was returned the books.'

b. ***Bókunum** voru skilað Jóni.
books.the.DAT were returned Jón.DAT
Intended: 'The books were returned to Jón.'

(Holmberg and Platzack, 1995, 215, ex. 7.67c,d)

[14] The numbers represented next to each verb class are based on an extensive list of ditransitive verbs in Icelandic provided in the appendix of Jónsson (2000). As noted by the author, the numbers for NAD, NDD, NDG and NAG verbs appear to be exhaustive. The most productive class, NDA, is in fact larger than the indicated 220.

Moreover, in contrast to verbs that show symmetric passives (and object shift), verbs with asymmetric passives do not allow object shift, as in (66).

(66) a. Mannræninginn skilaði foreldrunum **börnunum**.
kidnapper.the.NOM returned parents.the.DAT children.the.DAT
'The kidnapper returned the kids to the parents.'

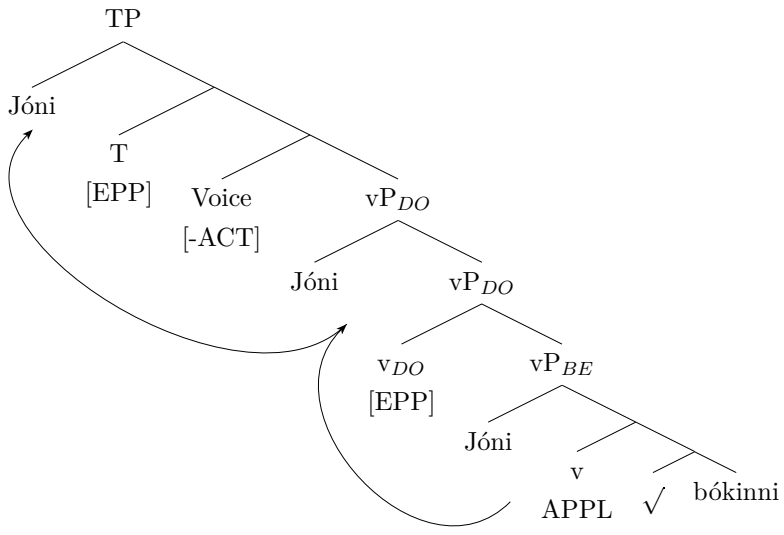
b. *Mannræninginn skilaði **börnunum** foreldrunum.
kidnapper.the.NOM returned children.the.DAT parents.the.DAT
Intended: 'The kidnapper returned the kids to the parents.'[15]

(Thráinsson, 2007, 132, ex. 3.92)

Asymmetric predicates in Icelandic allow only the higher object to passivise. Because such asymmetric predicates do no show object shift, we take it that in asymmetric predicates, no movement of the DO to the edge of the phase is possible. The derivation proceeds as in (67).

(67) a. **Jóni** var bókinni skilað.
Jón.DAT war book.the.DAT given.back
'Jón was given the book back.'

b. ***Bókinni** var skilað Jóni.
book.the.DAT was given.back Jón.DAT
Intended: 'The book was given back to Jón.'



There are at least two possible reasons as to why predicates with asymmetric passives do not allow the DO$_{DAT}$ to passivise or shift. One of the reasons could be that such predicates do not have the optional EPP feature on v_{BE}. As a result, only the IO can passivise, as under *Attract Closest*, it is the closest

[15]The sentence is grammatical under the meaning 'The kidnapper returned the parents to the kids', however the same sentence is ungrammatical under the meaning with inversion, where the kids are returned to the parents.

target of the [EPP] on *T*. The IO will first be attracted to the edge of the vP_{DO} phase, from where it will move further to [*Spec;TP*]. Another possible reason is linked to the character of the DO's case. It could be that, under the *Activity Condition*, the DO_{DAT} is inactive. If so, the DO's dative case is not quirky, but lexical. Once the dative is valued by the root that licenses the DO argument, the DO becomes invisible to syntax and therefore it cannot move to [*Spec;*vP_{BE}], from where it could move further up.

Summing up, Icelandic IO_{DAT}s differ from Polish IO_{DAT}s in two ways. Firstly, Icelandic IO_{DAT}s are merged as part of *vP* while Polish IO_{DAT}s are merged within *ApplP*. Secondly, the dative case of Icelandic IOs is quirky, i.e. it is composed of a combination of a valued inherent case and an unvalued structural case. Under the *Activity Condition*, the extra (unvalued) structural case on Icelandic IOs makes them visible to syntax for passivisation. In contrast, Polish IO_{DAT}s appear to be inherently case-marked, and therefore they lack the unvalued structural case, which could make them visible for passivisation.

In what follows, we show that similar observations can be made about experiencers in the two languages in question. We propose that Icelandic Exp_{DAT}s are *vP*-internal and marked with quirky case, while Polish Exp_{DAT}s are *Appl*-internal and marked with inherent case.

5.2. A-movement in Exp-Th constructions

In this section, we extend our analysis of A-movement in passives, proposed in the previous section, to A-movement to [*Spec;TP*] in the Experiencer-Theme construction (Exp-Th).

(68) a. **Tomkowi** spodobała się ta książka.
Tomek.DAT appealed REFL this book.NOM
'This book appealed to Tomek.'

b. **Ta książka** spodobała się Tomkowi.
this book.NOM appealed REFL Tomek.DAT
'This book appealed to Tomek.'

(69) a. **Mér** hefur alltaf fallið þessi bók vel í geð.
me.DAT has always fallen this book.NOM well in liking.
'I have always liked this book.'

b. **Þessi bók** hefur alltaf fallið mér vel í geð.
this book.NOM has always fallen me.DAT well in liking
'This book has always been to my liking.'

(Barðdal et al., 2014, 5, ex. 5a-b)

In Polish, only the nominative-marked theme (Th_{NOM}) moves to [*Spec;TP*]. As

discussed in Chapter 4, and illustrated in (68a), the Polish dative experiencer (Exp_{DAT}) can appear in the preverbal position. The preverbal Exp_{DAT} moves to [*Spec;CP*] in discourse-marked contexts, or remains in situ, in [*Spec;ApplP*], in discourse-neutral contexts.

In Icelandic, some predicates allow either of the arguments to move to [*Spec;TP*], as in (69), some allow only the Exp_{DAT} to move to [*Spec;TP*], as in (70a).

(70) a. **Mér** hafði aldrei líkað þessi bók.
me.DAT had never liked this book.NOM
'I had never liked this book.'

b. *__Þessi bók__ hafði aldrei líkað **mér**.
this book.NOM had never liked me.DAT
Intended: 'This book I never liked.'

(Barðdal et al., 2014, 4, ex. 4a, 4c)

We explain the difference between Icelandic and Polish based on equidistance and the inactivity of the Polish dative as opposed to the activity of (some of the) datives in Icelandic. Following, e.g. Ingason and Wood (2017); Legate (2003); Marantz (2007), we assume that unaccusative verbs are associated with an optional EPP just like transitive verbs are. Thus, we take it that the v head above the root in unaccusative verbs is a phase, just like the v of transitives. Before we move to the the analysis, in the section to follow, we briefly discuss the subjecthood status of the Icelandic Exp_{DAT} of Exp-Ths.

5.2.1. Experiencers: Icelandic vs. Polish

In Chapter 4, we argued that although Polish Exp_{DAT}s can antecede anaphors, Exp_{DAT}s are not subjects. Rather, the experiencer is a high applicative, merged above the v_{BE} of an unaccusative predicate. The high projection of the Exp_{DAT} accounts for its subject-like properties, e.g. anaphor binding, control of participial adjunct clauses. At the same time, because Exp_{DAT}s do not show other subject-like properties, e.g. raising or PRO control, they do not seem to move to [*Spec;TP*].

Similarly to Polish, Icelandic Exp-Ths have an unaccusative structure (e.g. Wood, 2015; Wood and Sigurðsson, 2014). However, in contrast to Polish, Icelandic Exp_{DAT}s move to [*Spec;TP*], in which position they obtain subject properties (Andrews, 1976, 1982a,b, 1990; Barðdal et al., 2014; Jónsson, 1996; Maling, 1990; Sigurðsson, 1989, 1996; Thráinsson, 2007; Zaenen, 1980, 1985; Zaenen et al., 1990, a.o.). Thus, Icelandic Exp_{DAT}s are bona fide subjects. For a discussion on the non-subjects status of Polish Exp_{DAT}s, see Chapter 4. Below, we focus on Icelandic only. We take the three subjecthood tests (Zaenen et al.,

1990) discussed in Section 5.1.2 and apply them to Exp$_{DAT}$s. For a discussion on other diagnostics demonstrating the subjecthood of Icelandic Exp$_{DAT}$s, we refer the reader to the literature mentioned here.

In Section 5.1.2, we noted that the context of exceptional case marking can be used in Icelandic as a subjecthood diagnostics. This is because only subjects can move from a lower clause to the object position of the matrix clause and receive case from the matrix clause verb. The examples in (71) demonstrate that Exp$_{DAT}$s of Icelandic Exp-Ths can be exceptionally case-marked and hence they appear to be akin to bona fide subjects.

(71) a. **Henni** hefur alltaf þótt Ólafur leiðinlegur.
her.DAT has always thought Ólafur.NOM boring.NOM
'She has always found Ólafur boring.'
(Zaenen et al., 1990, 100, ex. 13)

b. Ég tel **henni** hafa alltaf þótt Ólafur
I.NOM believe her.DAT has always thought Ólafur.NOM
leiðinlegur.
boring.NOM
'I believe her always to have found Ólafur boring.'
(Zaenen et al., 1990, 101, ex. 16)

Moreover, similarly to Polish, Icelandic pronouns split into reflexive and non-reflexive. Reflexive pronouns require a subject antecedent. Thus, if a given argument can act as a licit anaphor binder it must be in the subject position. This, as we already demonstrated in Section 5.1.2, is true of passive and active subjects. It is also true of Exp$_{DAT}$s, as in (72).

(72) a. **Henni**$_i$ þykir bróðir **sinn**$_i$ /*hennar$_i$ leiðinlegur.
her.DAT thinks brother.NOM self's.NOM her.GEN boring
'She finds her brother boring.'

b. **Hverjum**$_i$ þykir **sinn**$_i$ fugl fagur. (proverb)
everyone.DAT thinks self's.NOM bird.NOM beautiful.NOM
'Everyone thinks his own bird beautiful.'
(Zaenen et al., 1990, 102, ex. 18)

The third test which we discussed in Section 5.1.2, draws on indefinite subject postposing. We noted that only indefinite subjects can appear after the main verb in a construction with the expletive *það* 'there'. The same is true of Exp$_{DAT}$s, which when indefinite, can also be postposed.

(73) a. **Einhverjum** hefur alltaf þótt Ólafur leiðinlegur.
someone.DAT has always thought Ólafur.NOM boring.NOM
'Someone has always found Ólafur boring.'

b. Það hefur **einhverjum** þótt Ólafur leiðinlegur.
there has someone.DAT thought Ólafur.NOM boring.NOM
'Someone found Ólafur boring.'
(Zaenen et al., 1990, 104-05, ex. 25)

These three test mentioned here as well as the other diagnostics, mentioned in the literature, demonstrate that non-nominative experiencers in Icelandic are true subjects. This means that Exp_{DAT}s move to [*Spec;TP*] in Icelandic, contrary to Polish Exp_{DAT}s. In what follows, we account for the difference between Polish and Icelandic experiencers by proposing that Icelandic Exp_{DAT}s are *vP*-internal and marked with quirky case. In contrast, Polish Exp_{DAT}s are *ApplP*-internal and inherently case-marked.

5.2.2. A-movement in Polish Exp-Ths

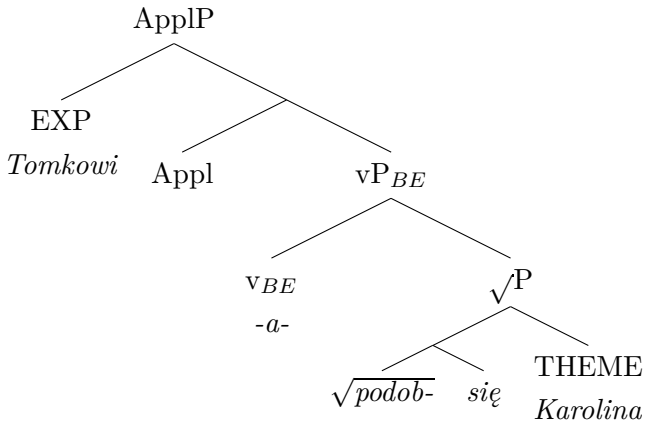
In Polish, as discussed in more detail in Section 4.2.2 of Chapter 4, only Th_{NOM}s move to [*Spec;TP*]. Exp_{DAT}s, when in preverbal position, either stay in situ, for discourse-neutral contexts or move to [*Spec;CP*] when discourse-marked. We based this analysis on the results of an experiment reported in Gogłoza and Łęska (2018), which shows that the preverbal Th_{NOM}s of Exp-Ths in Polish are acceptable as anaphor binders.

(74) Tomek$_i$ podoba się **swojej**$_i$ /*jego$_i$ koleżance.
Tomek.NOM appeal REFL self's /his (female) friend
'Tomek appeals to his female friend.'
(Gogłoza and Łęska, 2018, 520, ex. 11b)

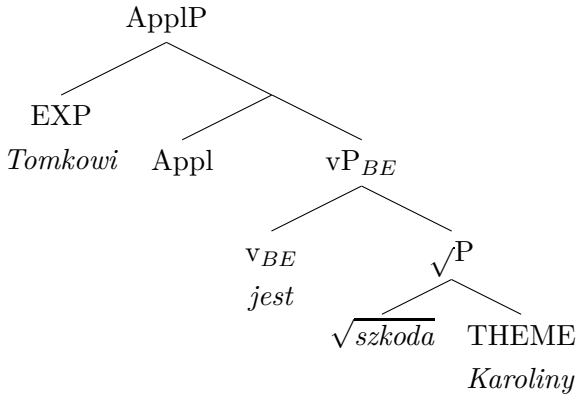
(74) demonstrates that the Th_{NOM} moves to an A-position. This extends the binding domain and makes the Th_{NOM} a licit antecedent of the anaphor in the Exp_{DAT} position. Were the Th_{NOM} moved to [*Spec;CP*], we would expect reconstruction. Thus, the Th_{NOM} would not be able to bind the anaphor; contrary to the facts. Following Gogłoza and Łęska (e.g. 2018); Jiménez-Fernández and Rozwadowska (e.g. 2016), we take the movement of Exp_{DAT}s to the preverbal position to be an A-bar type of movement. Thus, in what follows, we focus exclusively on movement of Th_{NOM}s, which we take to be of the A-type.

In Chapter 4, we proposed the following basic structure for Polish Exp-Ths:

(75) Tomkowi podoba się Karolina.
Tomek.DAT appeals REFL Karolina.NOM
'Karolina appeals to Tomek.'



(76) Tomkowi jest szkoda Karoliny.
Tomek.DAT is pity Karolina.GEN
'Tomek feels sorry for Karolina.'



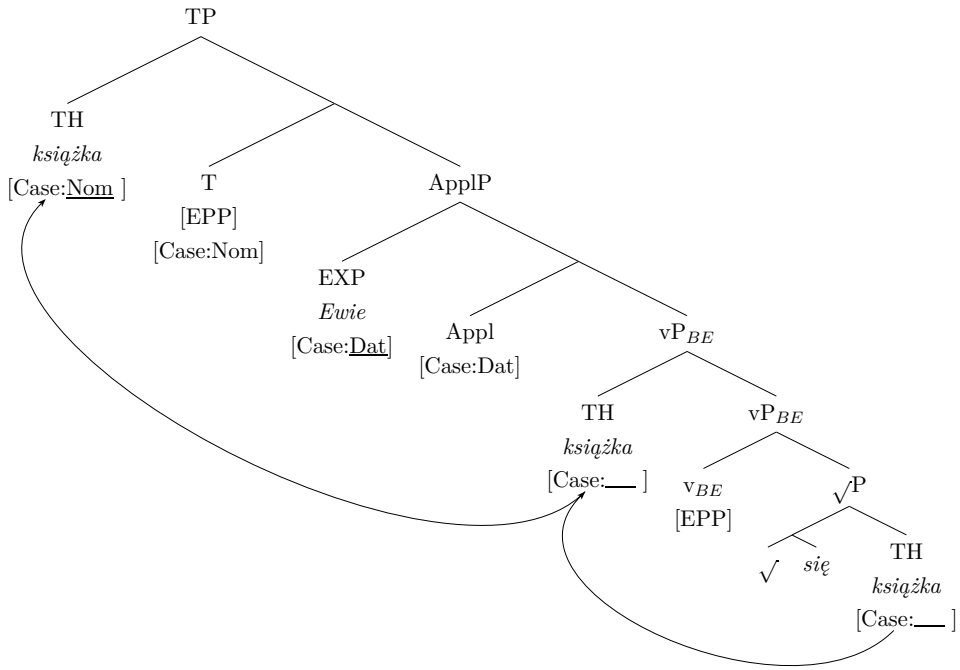
(75) illustrates a verbal predicate of the Exp-Th-type. (76) illustrates a non-verbal predicate. The difference between the two types is the morphological realisation of the v_{BE} head. Verbal predicates realise v_{BE} by means of a thematic vowel. Non-verbal predicates realise the v_{BE} by means of the copula *być* 'to be' (*jest* in 3^{rd} person singular in the present tense). Moreover, the Th of verbal predicates is marked with nominative case while the Th of the non-verbal predicate takes lexical genitive.

The decomposition of the Exp-Th verb into the root and v_{BE} as well as the unvalued structural case of Th allow the Th$_{NOM}$ of verbal predicates to move to [*Spec;TP*]. Consider the derivation in (77).[16]

(77) Książka spodobała się Ewie.
book.NOM appealed REFL Ewa.DAT

[16]Recall from Chapter 4 that we proposed that the Exp$_{DAT}$ is base-generated in [*Spec;vP*$_{BE}$] and later it is *made* into an applicative by movement to [*Spec;ApplP*]. Because this detail is not crucial to the discussion in this chapter, we abstract away from the Exp's movement from [*Spec;vP*$_{BE}$] to [*Spec;ApplP*] in the tree representations.

'The book appealed to Ewa.'



The Th is merged as a complement of the root. Attracted by the EPP on v_{BE}, the Th moves to [*Spec;vP*$_{BE}$]. From [*Spec;vP*$_{BE}$], the Th moves to [*Spec;TP*] where it receives nominative case from *T*. Note that because the verb is decomposed into the root and the verbal head $_{BE}$, anti-locality does not block the Th from movement to [*Spec;vP*$_{BE}$]. Moreover, only the Th argument, marked with [Case:___], is attracted to move to [*Spec;TP*]. Under the *Activity Condition*, the Exp, marked with inherent dative case, is syntactically inactive. Therefore, the Exp cannot be attracted by the EPP to move to [*Spec;TP*].

Similarly, the Th$_{nonNOM}$ of non-verbal Exp-Th predicates is syntactically inactive. Because the Th$_{nonNOM}$ is marked with lexical genitive case, licensed by the root, the Th$_{nonNOM}$ is invisible under the *Activity Condition*. While it is possible to front the Th to a preverbal position, it is not via A-movement. Rather, the Th$_{nonNOM}$ moves, via A-bar movement, to [*Spec;CP*]. This is supported by the fact that the fronted Th$_{nonNOM}$s, as in (78), cannot antecede the possessive reflexive.

(78) *Karoliny jest szkoda **swojemu** mężowi.
Karolina.GEN is pity self's husband.DAT
Intended: 'Karolina's husband feels pity for her.'

(78) demonstrates that the movement of the Th$_{nonNOM}$ to the preverbal position does not extend the binding domain. Thus, the movement does not appear to be of the A-type. Were the Th displaced by A-movement, it would be

able to antecede the possessive reflexive. Following Miyagawa (2010) we take it that discourse-related movement is not subject to the *Activity Condition*. Thus, while movement of syntactically inactive DPs to [*Spec;CP*] is possible, one cannot move inactive DPs to [*Spec;TP*].

In what follows, we demonstrate that Icelandic Exp-Th predicates differ from the Polish ones. First of all, in contrast to Polish Exp$_{DAT}$s, Icelandic Exp$_{DAT}$s are syntactically active and therefore visible for A-movement. Moreover, in contrast to Polish, Icelandic Exp-Ths may have different structures. Some Icelandic Exp-Th predicates do not decompose into the root and v_{BE}; rather, these two elements are merged together. In these verbs, anti-locality will block the movement of Ths to [*Spec;TP*], even if the Th is syntactically active. This is in contrast to Polish, which always decomposes Exp-Th predicates into the root and v_{BE}, and therefore it always allows syntactically active Ths to move to [*Spec;TP*].

5.2.3. A-movement in Icelandic Exp-Ths

5.2.3.1. Symmetric DAT-NOMs

The A-movemnet in the Icelandic Exp-Th construction is similar to Icelandic ditransitive passives in that it can be symmetric or asymmetric.[17] Verbs such as *að líka* 'to like' are asymmetric in that they only allow the Exp$_{DAT}$ argument to move to the preverbal position. However, some DAT-NOM Exp-Th verbs in Icelandic, e.g. *að nægja* 'to suffice', allow either of the arguments to move in front of the verb. The difference is illustrated in (79) and (80).

(79) **non-alternating DAT-NOM verb**

a. **Mér** hefur aldrei líkað svona dónaskapur. (Icelandic)
me.DAT has never liked such rudeness.NOM
'I have never liked such rudeness.'

b. ***Svona dónaskapur** hefur aldrei líkað **mér**.
such rudeness.NOM has never liked me.DAT
Intended: 'Such rudeness, I have never liked.'

(80) **alternating DAT-NOM verb**

a. **Mér** hafa alltaf nægt tvennir skór.
me.DAT have always sufficed two.pairs shoes.NOM
'I have always made do with two pairs of shoes.'

[17] The discussion in the literature has typically been centred around the non-alternating verbs. Nevertheless, the existence of alternating DAT-NOM verbs has been reported as early as Bernódusson (1982). Recently, it has been highlighted in, e.g. Barðdal (1999, 2001); Jónsson (1997); Platzack (1999); Wood and Sigurðsson (2014).

b. **Tvennir skór** hafa alltaf nægt **mér**.
two.pairs shoes.NOM have always sufficed me.DAT
'Two pairs of shoes have always sufficed for me.'

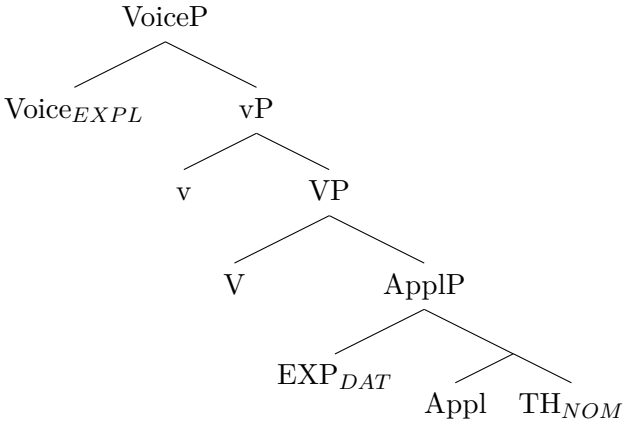
(Wood and Sigurðsson, 2014, 276, ex. 16-17)

Similarly to the Icelandic IO$_{DAT}$s, there is evidence that Exp$_{DAT}$s in (79) move to [*Spec;TP*] where they become bona fide subjects (Andrews, 1976, 1982a,b, 1990; Maling, 1990; Sigurðsson, 1989, 1997, 2004; Thráinsson, 1979, 2007; Zaenen, 1980, 1985; Zaenen et al., 1990). Under the *Activity Condition*, the fact that Icelandic Exp$_{DAT}$s can be a target of A-movement indicates that they are syntactically active. This, as demonstrated in the previous section and in Chapter 4, is in contrast to Polish. Polish Exp$_{DAT}$s are syntactically inactive; they can move to [*Spec;CP*], but they cannot become subjects by moving to [*Spec;TP*].

The (a)symmetries in Icelandic DAT-NOMs align with the (a)symmetries in the passives of ditransitives. In the case of symmetric movement, either of the arguments can move to [*Spec;TP*]. In the case of asymmetric movement it is the higher argument, the Exp$_{DAT}$, that is attracted to [*Spec;TP*]. As Wood and Sigurðsson (2014) note, both ditransitives and DAT-NOM are applicative constructions. Moreover, the authors take both constructions to be of the low applicative type, as also proposed in, e.g. Viðarsson (2017); Wood (2014). This is in contrast to Polish, where the IO is a low applicative and the Exp$_{DAT}$ is a high applicative.

Wood and Sigurðsson (2014) assume the same verb architecture as in this thesis, i.e. a *Voice* projection (in transitive predicates) and the decomposition of the verb into a category-neutral root and a categorising head *v*. The authors propose the following structure for the Exp-Th construction in Icelandic.

(81)



(Wood and Sigurðsson, 2014, 280, ex. 25)

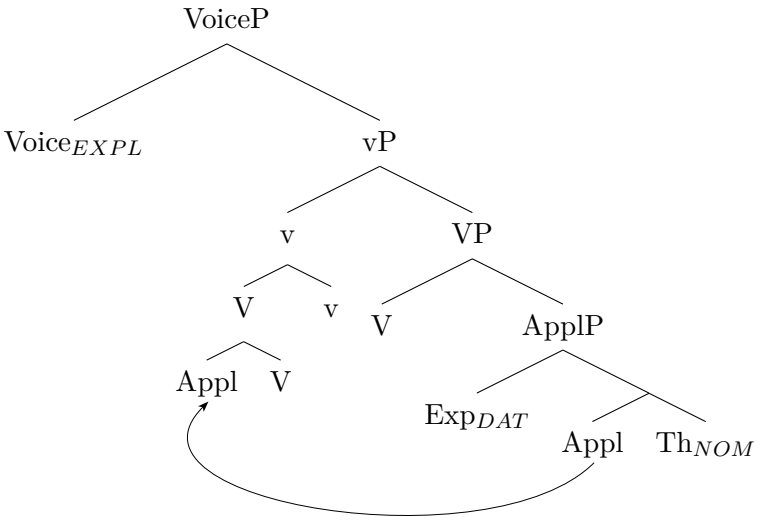
In the analysis of Wood and Sigurðsson, unaccusative constructions are embed-

ded under an expletive *Voice* head. This is also the case for Exp-Ths, hence the $Voice_{EXPL}$ in (81), the details of which we abstract away from here, as they are not crucial to the discussion. The structure proposed in (81) underlies both symmetric and asymmetric Exp-Th predicates of the DAT-NOM frame.

> The difference between the two of them [...], is that in symmetric DAT-NOM constructions, the Appl head raises to V before the latter raises to v. This makes the complement of Appl, the theme, equally close to c-commanding heads as the dative [...] Hence, either is available to move to the subject position. (Wood and Sigurðsson, 2014, 280)

This is illustrated in (82).

(82)



(Wood and Sigurðsson, 2014, 280, ex.26)

In the analysis of Wood and Sigurðsson (2014), it is the *Appl* head that moves to *v*, not the applied object. The movement of the *Appl* head establishes the equidistance of the Exp_{DAT} and Th_{NOM} with regard to *T*, following the notion of equidistance proposed in den Dikken (2006, 2007). The *Appl* head is taken to be a phase head. Because of the movement of *Appl* to *v*, the phase associated with the *Appl* head is extended, and the Exp_{DAT} and the Th_{NOM} become equidistant with regard to a higher c-commanding head attracting movement. With asymmetric Exp-Th constructions, *Appl* does not move to *v*, and therefore only the Exp_{DAT} is available for A-movement to [*Spec;TP*].

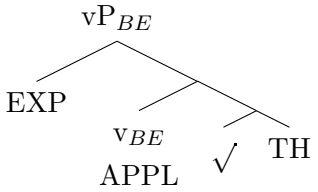
The equidistance of the Exp_{DAT} and Th_{NOM} in symmetric Exp-Th predicates, as proposed in Wood and Sigurðsson (2014), explains why either of the

arguments can move to the preverbal position. Note, however, that the authors assume a different understanding of equidistance than that of Chomsky (1995) (followed in this thesis). According to den Dikken (2006, 2007), equidistance is established by movement of *Appl* to *v*. Under the account of Chomsky (1995), equidistance would be achieved by the Th's movement to the specifier position of the phase head. However, because Wood and Sigurðsson (2014) assume that the *Appl* is a phase, they cannot propose Th's movement to [*Spec;ApplP*], as anti-locality would block such movement. At the same time, Wood and Sigurðsson (2014) must explain how the Th_{NOM} moves out of the *ApplP* phase.

Following the notion of equidistance of den Dikken (2006, 2007), Wood and Sigurðsson (2014) manage to explain the Icelandic data. However, the authors take the low applicative head to be a phase, contrary to other accounts in the literature (Citko, 2014; Jeong, 2007; Lee, 2005; McGinnis, 2001, e.g.). In what follows, we show that one can explain the Icelandic data without assuming the phasehood of *Appl* heads. We follow the notion of equidistance of Chomsky (1995) and assume that, similarly to Icelandic IO_{DAT}s discussed in Section 5.1.6, Exp_{DAT}s are *vP*-internal low applicatives. Following Chomsky (1995), we take it that equidistance is established when the Th moves to [*Spec;vP*$_{BE}$], above the Exp in [*Spec;vP*]. Such equidistance of Exp_{DAT} and the Th allows for symmetric A-movement in Icelandic Exp-Ths.

We propose the following basic structure for Icelandic Exp-Th predicates.

(83) **Icelandic Exp-Th predicates**

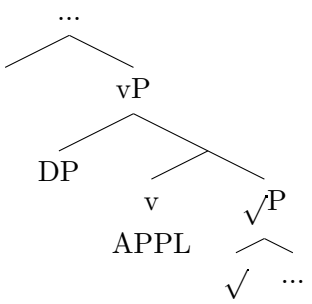


We abstract away from the question of whether the Icelandic Exp-Th projects an expletive-type *Voice* head or lacks a *Voice* projection altogether, as it does not have any serious consequences for the analysis to be presented. Crucially, in contrast to Wood and Sigurðsson (2014), we take the Icelandic low applicative to be *vP*-internal. This, as we show, allows us to explain the movement of Th_{NOM} without taking low applicative heads to be phases.

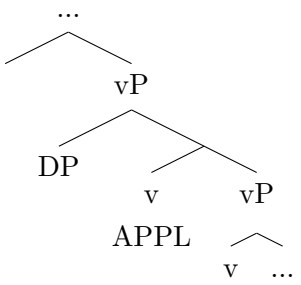
Based on the discussion on Polish Exp-Th in Chapter 4, one could say that the Exp in [*Spec;vP*$_{BE}$] in (83) appears to be a high applicative, not a low one. For Polish *ApplP*-internal applicatives, we said that those applicatives that merge above *v* are high. Because the Icelandic *vP*-internal applicative merges above v_{BE}, it might appear to be a high applicative. For Polish, a language with *ApplP*-internal applicatives, we differentiated between low applicatives which

merge below v and high applicatives which merge above v. However, in the case of vP-internal applicatives, as in Icelandic, it is more accurate to distinguish between applicative-flavoured v heads which are merged as 'sisters to vP' (for high applicatives) or 'sisters to $\sqrt{P}$' (for low applicatives), as illustrated in (84).

(84) a. **low *vP*-internal applicatives**
applicative head merged as sister to $\sqrt{\text{P}}$

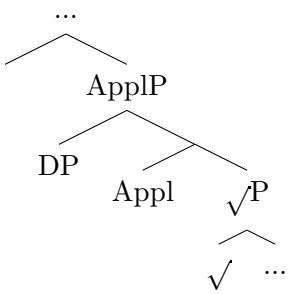


b. **high *vP*-internal applicatives**
licensing head merged as sister to vP

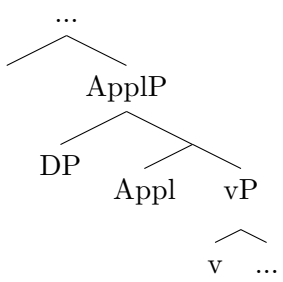


The same distinction can be made with regard to *ApplP*-internal applicatives. Namely, low *Appl* heads are merged as sister to $\sqrt{P}$. High *Appl* heads are merged as sister to vP, as in (85).

(85) a. **low *ApplP*-internal applicatives**
applicative head merged as sister to $\sqrt{(\text{P})}$



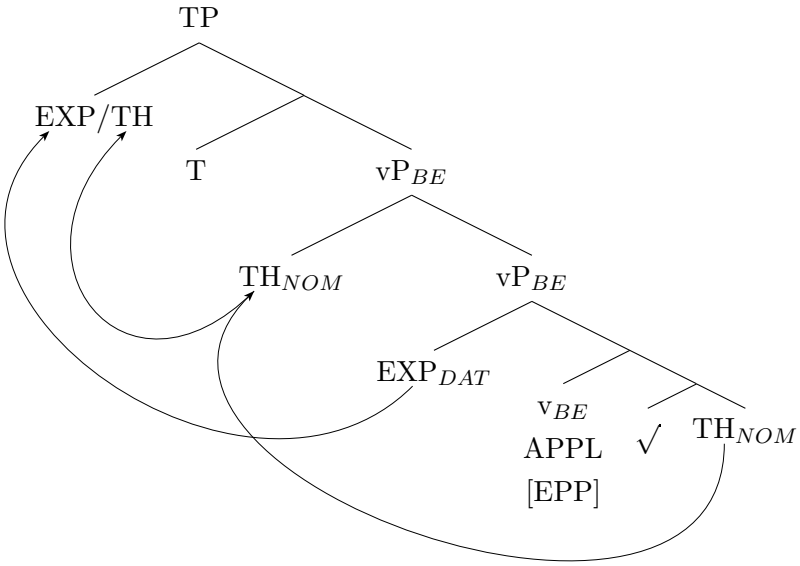
b. **high *ApplP*-internal applicatives**
licensing head merged as sister to vP



Thus, because the head that licenses the Exp_{DAT} in (83) is a sister of $\sqrt{}$P, the Exp_{DAT} is a low applicative.[18]

In (83), we represent the basic structure of Icelandic Exp-Ths. We assume that verbal applicative heads are associated with an optional EPP-feature, i.e. that verbal applicative heads are phases. Thus, in symmetric Exp-Th in Icelandic, v_{BE} can attract the Th_{NOM} argument to move to the outer [*Spec;vP*$_{BE}$], above the Exp_{DAT}, as in (86).

(86) **symmetric Exp-Th in Icelandic**



The *v* head, merged above the root, is marked with zero applicative morphology and it licenses a *vP*-internal applicative argument. The applicative is merged in [*Spec;vP*]. Crucially, if the Th_{NOM} argument is attracted by the optional (phase) EPP on v_{BE} and moves to vP_{BE} phrase, the Th_{NOM} and the Exp_{DAT} become equidistant to *T*, allowing either of the two to move to [*Spec;TP*]. This equidistance accounts for symmetric Exp-Th predicates.

[18]Incidently, our basic representation of the low applicative structure in Icelandic reflects a 'high-low' nature of the Icelandic Exp_{DAT}a. Some, e.g. Maling and Jónsson (1995); Viðarsson (2017); Wood (2015), argue that Icelandic Exp_{DAT}s are *high-low applicatives*, i.e. applicatives of low applicative syntax, but high applicative semantics.

As already noted, the fact that Icelandic Exp$_{DAT}$s can move to [*Spec;TP*] indicates that, under the *Activity Condition*, Exp$_{DAT}$s appear to be syntactically active, which is in contrast to Polish Exp$_{DAT}$s. That Icelandic Exp$_{DAT}$s are visible in the syntax has independently been proposed in, e.g. Boeckx (2000); Richards (2008a,b); Sigurðsson (2004). Abstracting away from the details, e.g. Richards (2008b) proposes that the case of the Exp is quirky, in that it is composed of a valued inherent and an unvalued structural case. Under the *Activity Condition*, the extra, unvalued case of the Exp makes it visible to T and thus the two elements can establish *Agree*.

Crucially for the comparison between Polish and Icelandic, *Agree* between the Exp and T in Icelandic results in **Person-Case Constraint (PCC) effects**, manifested in T's features being limited to 3^{rd} person (Richards, 2008a,b).[19] The author proposes that T receives [Person:3] from the Exp, and the other ϕ-features on T are valued with the Th under *Multiple Agree*. For the *Multiple Agree* to be established, the Th's feature must match the T's [Person:3]. This explains why the person feature of both T and the Th is limited to 3^{rd} person.[20] This is illustrated in (87).

(87) a. Henni **leiddist hann** /**strákurinn**.
her.3SG.DAT bore.3SG he.3SG.NOM boy.the.3SG.NOM
'He/the boy bored her.'

[19] In its prototypical form, PCC effects are a restriction on co-occurrence of phonologically weak arguments of ditransitive verbs. In its strongest, and initially attested, form, it can be informally defined as in (i).

(i) **The strong version of PCC**: In a combination of a weak direct object and an indirect object [clitic, agreement marker, weak pronoun], the direct object has to be 3^{rd} person.

(Bonet, 1991, 182)

While initially observed in ditransitive contexts, some of the recent accounts of PCC have been extended to other constructions, e.g.: a) dative experiencer constructions with an abolutive theme in Basque (Rezac, 2004), b) Icelandic Exp-Th constructions (Boeckx, 2000; Richards, 2008a,b), c) Polish *to*-copular constructions (Bondaruk, 2012; Gogłoza, 2017b).

[20] The agreement restrictions in Icelandic Exp-Th can be summarised as follows:

(i) **Agreement restrictions in Icelandic Exp-Th constructions**

a. the nominative object can only be [Person:3]

b. T's [Person:___] is always valued [Person:3]

c. agreement with the nominative object is only partial, i.e. number only.

(Gogłoza, 2017b; Richards, 2008a)

b. Heinni **leiddust** **þeir** /**strákarnir**.
her.3SG.DAT bore.3PL they.3PL.NOM /boys.the.3PL.NOM
'They/the boys bored her.'

c. *Henni leiddist **ég** /**þú**.
her.3SG.DAT bore.1SG I.3SG.NOM /you.2SG.NOM
Intended: 'I/you bored her.'

(Gogłoza, 2017b, 109, ex. 12, modelled on Sigurðsson 1996)

As argued in Boeckx (2000); Chomsky (2000); Richards (2008a), such non-standard PCC effects are not a language-specific phenomenon. Nevertheless, we do not find such PCC effects in the Polish Exp-Th construction, which might indicate that Polish Exps do not agree with *T*. In fact, it is clear that there is no *Agree* relation between the Exp and *T* in Polish. This is because, as demonstrated in (88), *T* fully agrees with the Th$_{NOM}$.

(88) a. **On** **/chłopiec** **znudził** się Ewie.
he.3SG.M.NOM /boy.3SG.M.NOM bored.3SG.M REFL Ewa.DAT
'Ewa got bored with him/the boy.'

b. **Oni** **/chłopcy** **znudzili** się Ewie.
they.3PL.M.NOM /boys.3PL.M.NOM bored.3PL.M REFL Ewa.DAT
'Ewa got bored with them/the boys.'

c. **Ty** **znudziłaś** się Ewie.
you.2SG.NOM bored.2SG.F REFL Ewa.DAT
'Ewa got bored with (feminine) you.'

d. **Ja** **znudziłam** się Ewie.
I.1SG.F.NOM bored.1SG.F REFL Ewa.DAT
'Ewa got bored with me.'

The predicate fully agrees with the Th$_{NOM}$, and it does so regardless of the Th's position, whether preverbal, as in (88), or postverbal, as in (89).

(89) Ewie **znudził** się **on** /**ten chłopiec**.
Ewa.DAT bored.3SG.M REFL he.3SG.M.NOM /this boy.3SG.M.NOM
'Ewa got bored with him/this boy.'

The lack of PCC-effects in Polish Exp-Th constructions is an indirect, and therefore weak, argument for the inactivity of Polish Exp$_{DAT}$s. However, there exists stronger evidence, which comes from **movement across dative-marked arguments**. It has been noted in the literature that Icelandic Exp$_{DAT}$s cause what has been known in the literature as **dative intervention effects** (Bobaljik, 2008; Holmberg and Hróarsdóttir, 2004; Preminger, 2011, 2014; Torrego, 1996, a.o.). As often noted, some languages show blocking of A-movement across dative-marked arguments. For example, in Icelandic, raising out of an embedded subject position across Exp$_{DAT}$ is blocked:

(90) a. Mér$_i$ virðast$_i$ *t* [hestarnir vera seinir].
me.DAT seem.3PL horses.the.NOM be slow.NOM
'It seems to me that the horses are slow.'
(Holmberg and Hróarsdóttir, 2004, 652, ex.1)

b. *Hestarnir$_i$ virðast **mér** [t_i vera seinir].
horses.the seem me.DAT be slow
Intended: 'It seems to me that horses are slow.'
(Holmberg and Hróarsdóttir, 2004, 652, ex. 4)

As argued in Holmberg and Hróarsdóttir (2004, 653), the ungrammaticality of (90b) is due to a failed agreement between the nominative-marked object in the embedded clause and the T of the matrix clause. The lack of agreement is due to the intervening dative argument. Essentially for the discussion in this chapter, if dative is an intervener, it must be syntactically active, under the *Activity Condition*.

As noted in Citko (2011), subject-to-subject raising across Exp$_{DAT}$s in Polish is possible. This clearly suggests that, in contrast to Icelandic, Polish Exp$_{DAT}$s are not active in the syntax. Because Polish Exp$_{DAT}$s ar syntactically inactive, they cannot give rise to dative intervention effects. Consider (91).

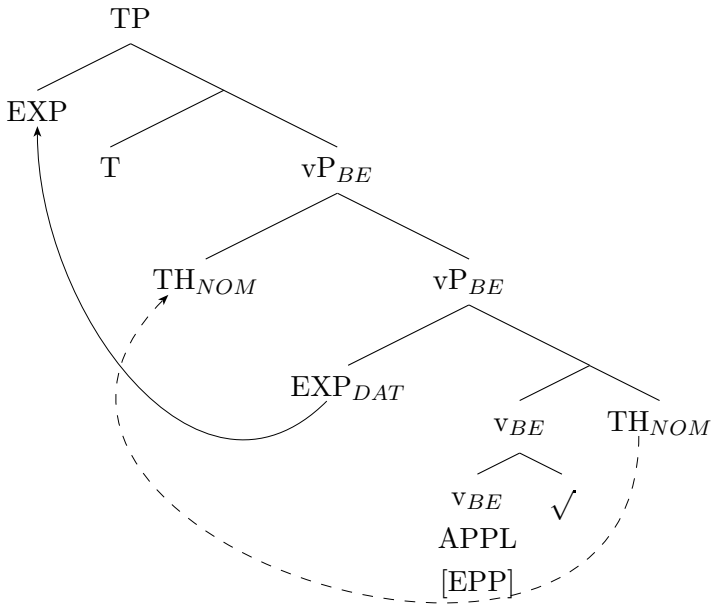
(91) Jan$_i$ wydaje **mi/Marii** się [t_i (być) najlepszym kandydatem].
Jan.NOM seems me/Maria.DAT REFL be best candidate
'Jan seems to me/Maria to be the best candidate.'
(Citko, 2011, 150, ex. 124a,b)

In (91), the subject of the matrix clause, base-generated as part of the subordinate clause, is allowed to move across the Exp$_{DAT}$ *mi* 'me' /*Marii* 'Maria'. This suggests that, in contrast to Icelandic, the Polish Exp$_{DAT}$ is invisible under the *Activity Condition*. Therefore, Polish Exp$_{DAT}$s do not cause intervention effects.

5.2.3.2. Asymmetric DAT-NOMs

In the case of asymmetric Exp-Th predicates in Icelandic, the movement of the Th$_{NOM}$ is blocked due to anti-locality. This is because the non-alternating Exp-Th predicates have a different structure than the alternating Exp-Th predicates (Wood and Sigurðsson, 2014). Following Wood and Sigurðsson (2014), we propose that non-alternating/asymmetric Exp-Th predicates attach their v_{BE} head directly to the root, as in (92).

(92) **asymmetric Exp-Th in Icelandic**



In principle, the EPP-feature of the verbal applicative in (92) could attract the Th$_{NOM}$ to move to the specifier of vP_{BE}. However, under anti-locality, such movement is blocked. Therefore, the only argument that can move to [*Spec;TP*] is the Exp$_{DAT}$. The structure in (92) derives the lack of symmetric movement in asymmetric Exp-Th verbs. Crucially, the data cannot be accounted for if the applicative head is taken to be *Appl*, not *v*. Under the *Appl* analysis, no anti-locality problem would arise, and thus movement of the Th$_{NOM}$ would be allowed, contrary to the facts.

The solution proposed, where asymmetric Exp-Ths have a different structure than symmetric ones, might seem ad hoc. However, there are some independent reasons as to why this analysis might be on the right track. A similar idea, although with a different analysis of the data, has been proposed by Wood and Sigurðsson (2014) themselves, who note that the root of symmetric Exp-Th predicates has different properties than the root of asymmetric Exp-Th verbs.[21]

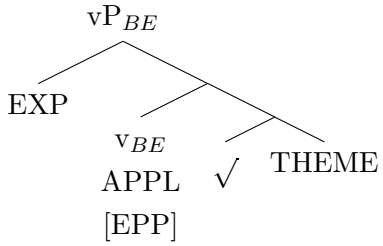
> For symmetric DAT-NOM [i.e. Exp-Th] verbs, the lexical root describes a property of the theme, whereas for asymmetric DAT-NOM verbs, the lexical root describes a property of the state, experience, or activity. (Wood and Sigurðsson, 2014, 282)

We can account for the observation of Wood and Sigurðsson with the difference

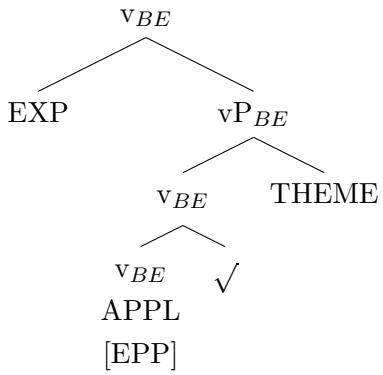
[21] A similar analysis has been proposed in Marantz (2013) for the difference in English *open* vs. *paint* predicates.

proposed in (93).

(93) a. **symmetric Exp-Th**



b. **asymmetric Exp-Th**



When the root is attached directly to the Th argument, it denotes a property of the Th. In contrast, when the root is merged directly with v_{BE}, it describes a property of the state/experience. As noted in Wood and Sigurðsson (2014), symmetric verbs as, e.g. *að nægja* 'to suffice' denote a property of the Th$_{NOM}$ entity. In the case of *að nægja* 'to suffice', the predicate describes that the theme is sufficient. In contrast, asymmetric verbs as, e.g. *að líka* 'to like' express a property of the Exp$_{DAT}$ concerning the Th$_{NOM}$ entity, i.e. that of liking the Th. Thus, an independent feature of the two types of Icelandic Exp-Th predicates, symmetric and asymmetric, combined with Phase Theory explains the asymmetries in their A-movement.

In contrast to Icelandic, Polish does not seem to have two different structures of Exp-Ths, illustrated in (93). As discussed in Section 5.2.2 and Chapter 4, as long as the Polish Th argument is marked with nominative, it can move to [*Spec;TP*]. Because the Th can move to [*Spec;TP*], the predicate structure must allow the Th's movement to the edge of the phase. Thus, the structure in (93b) cannot apply to the Polish data. Even when the predicate denotes a property of the Exp concerning the Th, the v_{BE} head merges above the root, not directly with the root. We can see that v_{BE} merges above the root in (94). This example illustrates a non-verbal Exp-Th predicate, which clearly decomposes into the root and v_{BE}.

(94) Tomkowi **jest**$_{v_{BE}}$ bardzo **szkoda**$_{ROOT}$ swojej sąsiadki.
Tomek.DAT is very sorrow self's neighbour.GEN
'Tomek feels very sorry for his neighbour.'

The predicate in (94) denotes a property of the Exp with regard to Th, as in (93b). However, in contrast to (93b), we can see that the predicate decomposes into separate heads, v_{BE} and root, which can additionally be 'interrupted' by the addition of an adverbial. Therefore, the structure in (93a) is a better representation of the predicate in (94).

Based on the fact that the Polish Th$_{NOM}$s can antecede anaphors when in preverbal position, in demonstrated in Section 5.2.2, we proposed that Th$_{NOM}$s move to [*Spec;TP*]. To allow such movement, the structure of the predicate cannot block the dislocation of the Th due to anti-locality. Thus, we take it that, similarly to the non-verbal predicate in (94), the verbal predicate, e.g. *podobać się* 'to appeal' cannot have the structure in (93b). The structure in (93b) does not allow for the movement of the Th to the edge of the vP_{BE} phase. Therefore, (93b) is inaccurate for Polish, in contrast to some Icelandic Exp-Ths.

5.3. Conclusions

This chapter framed the discussion on DACs and Exp-Th constructions, presented in Chapter 3 and 4, respectively. We focused on A-movement, particularly movement to [*Spec;TP*] in DACs and Exp-Ths, comparing it in Polish and Icelandic. We returned to the hypothesis introduced at the end of Chapter 2, where we proposed that applicative arguments divide into those that merge as part of a *vP*, *vP*-internal, and those that are projected as part of *ApplP*, *vP*-external. Based on the comparison of Icelandic and Polish, we showed that Polish appears to have *vP*-external applicatives while Icelandic applicatives are *vP*-internal.

Moreover, focusing on A-movement in passivisation and Exp-Th constructions, we showed that the structural difference between *vP*-internal and *vP*-external applicatives has some consequences for A-movement. Assuming that *v* heads are phases, we demonstrated that DOs moved to the phase edge establish equidistance with *vP*-internal applicatives, but not with *vP*-external applicatives. As a result, the equidistance of the IO and DO allows for either of the objects to passivise. Such equidistance is present in Icelandic passives of ditransitives. In contrast, in Polish, whose applicatives are *ApplP*-internal, the movement of the DO to the phase edge does not establish equidistance with the IO, in [*Spec;vP*]. Therefore, in Polish, only the DO can passivise.

We made similar observations about A-movement in Exp-Th constructions. When the dislocation of the Th_{NOM} to the phase edge establishes Th's equidistance with Exp_{DAT} towards T, either of the arguments can move further to [*Spec;TP*]. Such equidistance is found in symmetric DAT-NOM Exp-Th constructions in Icelandic. In Polish, Exp-Th constructions are asymmetric. Namely, in Polish, only the Th_{NOM} can move to [*Spec;TP*]. When the Th_{NOM} moves to [*Spec;vP*], i.e. the edge of phase, the Th_{NOM} and the Exp_{DAT}, in [*Spec;ApplP*], do not establish equidistance. Therefore, in Polish, only the Th_{NOM} can move to [*Spec;TP*].

Nevertheless, the notion equidistance and the hypothesis as to *vP*-internal vs. *vP*-external applicatives were not enough to account for the data. Additionally, we followed the *Activity Condition*, assuming that only DPs with at least one unvalued feature are visible for A-movement. We argued that in contrast to Icelandic IO_{DAT}s, Polish IO_{DAT}s are not visible to syntax. We proposed that Icelandic IO_{DAT}s are marked with a quirky case, i.e. a combination of inherent and structural case. In contrast, Polish IO_{DAT}s are inherently case-marked. The lack of additional, unvalued structural case on the Polish IOs makes the IOs invisible for A-movement. Moreover, we proposed the same difference in Polish Exp_{DAT}s as opposed to Icelandic Exp_{DAT}s. Namely, Polish Exp_{DAT}s are marked with an inherent dative case while Icelandic Exp_{DAT}s are marked with a combination of inherent and unvalued, structural case, i.e. quirky case.

In the chapter to follow, we briefly conclude the discussion in this thesis. We provide a summary of the main ideas presented, and we indicate points for further research.

6. Conclusions

In this thesis, we proposed a unified analysis of the various uses of the Polish dative. In semantic terms, in Chapter 2, we put forward the idea that dative uses in Polish fall under a common semantic notion, that of affectedness, in (1).

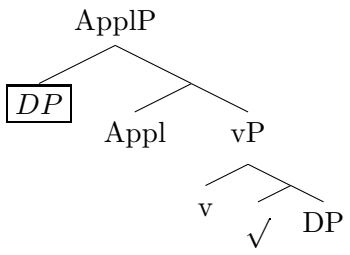
(1) **Affectedness of the dative-marked DP:**
An entity lexicalised as a dative-marked argument is said to be **affected** iff: the event to which the dative argument is related can (potentially) give rise to a given mental state (positive or negative) of the entity encoded by the dative DP.

We proposed that the particular meaning of a given dative argument depends on the context and the denotation of the verbal predicate. However, all applicative dative arguments are marked with an [affected]-feature.

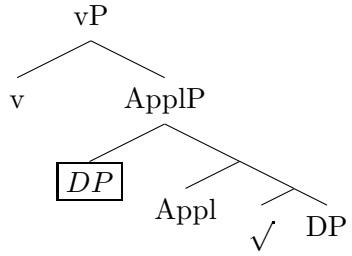
In morpho-syntactic terms, we argued that arguments marked with inherent datives in Polish are licensed by the applicative head, *Appl*. In Chapter 1, we assumed, following Woolford (2006), that non-structural case splits into lexical case and inherent case. Only lexical case is idiosyncratic, licensed by certain roots. In contrast, inherent case is more predictable, associated with a given θ-role or a structural position. We proposed that datives licensed by *Appl* are of the inherent type in Polish. We discussed the inherent nature of Polish applicatives in more detail in Chapter 5, where we proposed that Polish inherent datives are syntactically inactive under the *Activity Condition*.

In syntactic terms, in Chapter 2, we divided applicative arguments into two types, low applicatives and high applicatives. Low applicatives in Polish project below v and high applicatives project above v, as in (2).

(2) a. **Polish high applicative**



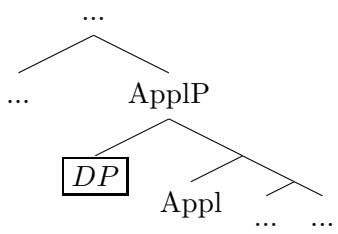
b. **Polish low applicative**



We proposed three applicative diagnostics for Polish: a) anaphor binding, b) licensing of adjunctive participial clauses and c) licensing of depictive secondary predicates. We argued that high applicatives pass all three diagnostics, while low applicatives fail all of them. We illustrated Polish low applicatives with recipients and benefactives/malefactives in Chapter 3. High applicatives were exemplified with dative experiencers in Chapter 4.

In contrast to, e.g. Cuervo (2003); Pylkkänen (2002, 2008) we did not take low applicatives to be co-arguments of direct objects. Instead, in Chapter 3 and Chapter 4, we argued that, at least in Polish, both low and high applicatives have the same syntactic structure, represented in (3).

(3) **the basic structure of Polish applicatives**



The syntactic difference between the two types stems from the position in which the *Appl* head merges, i.e. below v for low applicatives versus above v for high applicatives. Similarly, in Chapter 3, we proposed that for both low and high applicatives, the *Appl* head relates the applicative argument in [*Spec;ApplP*] to the event. Thus, the semantics of both applicative types can be represented as (4).

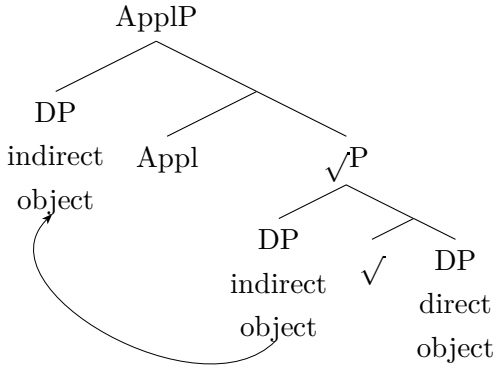
(4) **Appl**
λx.λe.Appl(e, x)
(collapsing Appl_{Rec}, Appl_{Ben}, Appl_{Instr}, Appl_{Loc}, etc.)
(modelled on Pylkkänen, 2002, 2008)

Moreover, in contrast to, e.g. Cuervo (2003); Pylkkänen (2002, 2008), in Chapter 2, we divided applicative arguments into verb-selected and free ones. Following Bosse (2015); Hole (2008), we proposed a participant implication test to differentiate the two types, as in (5).

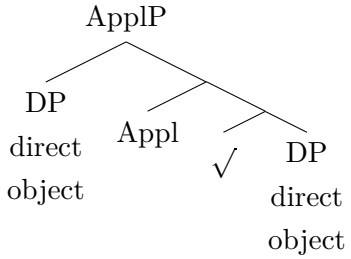
(5) **Syntactico-semantic deletion test for free datives**
A dative argument D not dependent on a preposition is *free* in a simple positive declarative sentence S of Polish **iff**
(i) S without D is grammatical;
(ii) S without D does not entail that there is an individual
(α) which participates in the event described by S and
(β) which could be encoded as a dative argument.
(modelled on Hole, 2012)

We proposed that free applicatives merge directly in [*Spec;ApplP*] while selected applicatives merge initially in [*Spec;*$\sqrt{}$*/vP*] and later move to [*Spec;ApplP*], motivated by the need to assign their θ-role and case. We illustrated the difference between the two types of applicatives, free and selected, with low applicatives in Chapter 3. We analysed recipients as selected applicatives and benefactives/malefactives as non-selected/free applicatives. We proposed the following structural difference between the two types:

(6) a. **selected applicative - recipient**



b. **free applicative - benefactive/malefactive**

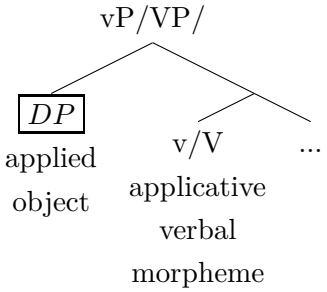


In cross-linguistic terms, at the end of Chapter 1, we hypothesised that applicative arguments split into *vP*-internal and *vP*-external ones. The maximal projection of a *vP*-internal applicative is that of *vP*. The maximal projection of

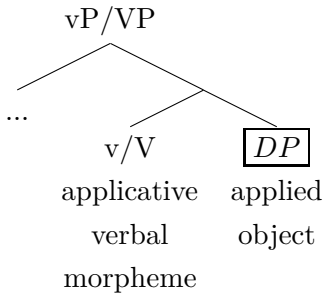
a *vP*-external applicative is that of *ApplP*. The difference is represented in (7) and (8).

(7) **verb-internal applicative**

a.

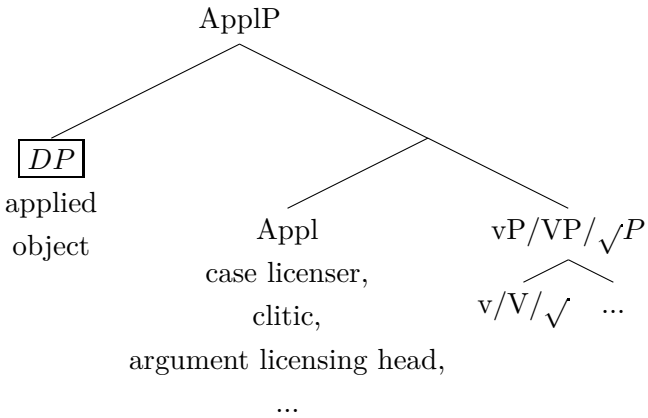


b.



Verb-internal applicatives merge as part of *vP* or *VP*, depending on the verb-architecture assumed. Moreover, verb-internal applicatives can merge in the specifier position of v/V or as a complement of v/V. Verb-external applicatives, as in (8), merge as part of *ApplP*.

(8) **verb-external applicative**



Applicatives that are *vP*-internal are predicted to behave like typical internal arguments, e.g. they can passivise. In contrast, we predicted *vP*-external applicatives to lack characteristics of internal arguments. We illustrated *vP*-external applicatives with Polish recipients, benefactives and experiencers, and

vP-internal applicatives with English recipients and Icelandic recipients and experiencers.

Moreover, in Chapter 5, based on the comparison of A-movement of applicatives in Icelandic and Polish, we proposed that some applicative arguments are syntactically active and some are inactive. Following the *Activity Condition*, which requires a given goal to have at least one unvalued feature, we took Polish dative applicatives to be inactive, and Icelandic dative applicatives to be active. We argued that the inactivity of Polish datives is due to the inherent character of their dative case. In Chapter 4, we proposed the case valuation algorithm, in (9).

(9) **(non)agreeing case assignment algorithm**

a. Assign non-agreeing, ACC, case to a DP that does not establish *Agree* with *T*,

b. Assign agreeing, NOM, case to a DP that establishes *Agree* with *T*,

c. Inherent/lexical Case takes precedence over other cases.

i. Inherent case is valued by a given functional head, e.g. *Appl*.

ii. Lexical case is valued by the root.

Under (9), the Polish inherent dative case is valued under *Agree* with *Appl*, making the dative-marked DP syntactically inactive for passivisation or other A-movement. Following other accounts, we took Icelandic datives to be marked with quirky case, i.e. a combination of inherent and structural case. The extra structural case added to the inherent dative makes Icelandic applicative datives syntactically active.

Further research

Due to time and space limitations, not all issues raised in this thesis received equal attention. In Chapter 2, we introduced the *vP*-internal/*vP*-external split hypothesis. Although we based the hypothesis on selected empirical data, more data analysis is required in order to validate the hypothesis. In particular, it would be interesting to make a more thorough comparison of languages with prototypical applicatives and languages that lack verbal applicative suffixes. Also, a more comprehensive analysis of non-prototypical applicative contexts in various languages could shed some more light as to the *vP*-internal/*vP*-external split hypothesised in this thesis.

Moreover, in Chapter 3, we briefly commented on the possible correlation between the availability of English-type resultatives and complex/small clause structures of one verbal predicate in a given language. This correlation has been

proposed in the literature based on data from various languages, and we showed that Polish data seems to support this observation. Nevertheless, in the same chapter, we marginally mentioned that although English-type resultatives are unproductive in Polish and that Polish DACs appear to lack a small clause projection, some Polish verbs, e.g. *otworzyć* 'to open' provide counterexamples to the observation about the correlation of resultatives and complex predicates. It would be interesting to see how such complex predicates differ from DACs and whether datives applied to such complex predicates, which appear to be low applicatives, are projected in the same position as recipients.

In Chapter 4, we only briefly mentioned accusative-marked experiencers. We leave it to further research to explore any differences and similarities between accusative and dative experiencers, both in syntactic and semantic terms. We hypothesised that Polish experiencers marked with accusative case do not move to [*Spec;ApplP*] and thus they do not become applicative arguments. Further research should validate this hypothesis. Moreover, if there are reasons to analyse Polish accusative-marked experiencers as applicatives, it would be interesting to investigate why these experiencers are marked with structural accusative case, rather than inherent dative case.

In Chapter 5, we compared Polish *vP*-external recipients and experiencers to Icelandic *vP*-internal recipients and experiencers. It would be interesting to extend the analysis to other languages to validate the *vP*-internal/*vP*-external split hypothesised. Moreover, with empirical data to support the hypothesis, we could establish more differences in syntactic behaviour between *vP*-internal applicatives and *vP*-external applicatives. This differences, in turn, would provide a basis for establishing clear diagnostics differentiating the two types of applicatives cross-linguistically.

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